An Illustrated Record of Mining, Metallurgical, Railway, Financial, Industrial, And Engineering Progress.

[The MINING JOURNAL is Registered at the General Post Office as a Newspaper and for Transmission Abroad.]

No. 3076 .- Vol. LXIV.

Abdust 4 1884.

LONDON, SATURDAY, AUGUST 4, 1894.

PRICE SIXPENOR. BY POST, #1 4s. PER AUNUM.

A. CORNFORTH AND CO., STOCK BROKERS AND MINING SHARE DEALERS, 33, OLD BROAD STREET, E.C.; AND Mining Exchange, London.

BUSINESS IN ALL CLASSES OF STOCKS AND SHARES, SPECIAL BUSINESS in KAFFIR Shares. Prompt Delivery made a special feature

Mining Circular free on application. BANKERS: CITY BANK.-Telegraphic Address: "Athelney, London,"

ASSAY OFFICE AND LABORATORY. B. KITTO'S,

30 and 31, ST. SWITHIN'S LANE, LONDON, E.C.

ASSAYS MADE OF ALL ORES. ANALYSES. ASSAYING TAUGHT.

MINERAL PROSPECTING BORINGS FOR WELLS.

Large Experience. Quick Speed. Work Guaranteed. APPLY TO

VIVIAN'S BORING & EXPLORATION CO. (LIMITED) WHITEHAVEN.

Despest Borehole in England (3195 feet) put down by this Company who have completed over 52 miles of boring. Telegraphic Address: "DIAMOND, WHITEHAVEN."

THE ASHBURY RAILWAY CARRIAGE AND IRON COMPANY (LIMITED).

Works:-Openshaw, Manchester. ANUFACTURERS OF

BAILWAY CARRIAGES, WAGONS, AND TRAMWAY CARS CARS for ELECTRIC & LIGHT RAILWAYS, RAILWAY IRONWORK, CARRIAGE & WAGON WHEELS, MANSELL'S WOOD-CENTRED WHEEL HYDRAULIC PRESSED WROUGHT IRON WHEELS,

lron Roofing, Bridgework, Turntables, Water Columns, Builders' Ironwork and Contractors' Plant.

Wagons built for cash, or for deferred payments.

London Office: - WESTMINSTER CHAMBERS, 7, VICTORIA STREET, WESTMINSTER, S.W.
Telegraphic Address-" Ashburys, Manchester."

THE WEST AUSTRALIAN REVIEW.

A WEEKLY JOURNAL
FOR ALL INTERESTED in WEST AUSTRALIAN AFFAIRS.

EVERT THURSDAY, THEREPRICE.

EVERT THURSDAY, THEREPRICE.

Edited and owned by ALBERT F. CALVERT, F.R.G.S., &c.

Author of "Discovery of Australia;" "Mineral Resources of Western
Australia;" &c.

"THE WEST AUSTRALIAN REVIEW" contains Special Articles on the
Gold Fields of Western Australia. OFFICE-47, OLD BROAD STREET, E.C.

CANNOCK CHASE COAL BY CANAL AND RAILWAY.

THE COMPANY SEND COAL BY RAILWAY in Trucks to all Stations, and load Canal Boats at their extensive Wharves on the Anglessy Branch of the Birmingham Canal, adjoining the Colliery; and also at Hednesford Basin, Cannock. For Prices, apply to

J. NEWLAND BROWN,

WARWICK CHAMBERS, CORPORATION STREET, BIRMINGHAM. Retail Department: OOLMORE CHAMBERS, 1, NEWHALL ST., Birmingham. London Office: 9 and 10, Southampton Street, High Holborn, W.C.

GOLD ASSAYING, &c.

GENTLEMEN having only a short time at their disposal can obtain SPECIAL INSTRUCTION in ASSAYING ORES of The Manchester and Liverpool District Banking Company (Limited). THE METALLURGICAL AND CHEMICAL LABORATORIES

are open every day. For Prospectuses, &c., apply to MARTIN and PETHYBRIDGE,

ASSAYERS, &c 183, KING'S ROAD, CHELSEA, S.W. GOLD ASSAYS conducted with check, 7s. 6d. per cample.

ASSAYING AND METALLURGY.

SPECIAL facilities are given for INSTRUCTION and PBACTICE in the ASSAYING and TREATMENT of GOLD and all other ores in the Metallurgical Laboratories of Kings College, Strand, London. Persons of all ages, are admitted at any time for a period of one month or upwards. Special arrangements are made for those who cannot devote their whole time to the work. The laboratory, besides being open every day, is open 7 to 9 on Friday evenings, Further information can be obtained at the Head Office of the Company.

Messrs. PETER WATSON and Co., 8, FINSBURY CIRCUS, LONDON, E.C. (NEAR TO THE STOCK EXCHANGE, AND THE MINING EXCHANGE,

ALL ORDERS and TELEGRAPHIC MESSAGES to Buy or Sell Railway Bank, Mine, and other Shares and Stocks punctually attended to, at Net Price for Cash, or for Fortnightly Settlementa, with advice as to Purchases or Sales to be addressed to Messrs. PETER WATSON and Co.

Mr. J. GRANT MACLEAN,

Sharebroker and Ironbroker, Stirling, N.B.

A. and Z. DAW,

MINING AND CONSULTING ENGINEERS AND MINE MANAGERS, (Members of the Institution of Mining and Metallurgy)

11, QUEEN VICTORIA STREET, LONDON, E.C. INSPECT AND REPORT UPON FOREIGN METALLIFEROUS MINES, AND UNDERTAKE THEIR MANAGEMENT & ADMINISTRATION. An intimate acquaintance with the leading Mining Districts of Norway and Sweden, with mastery of the language and knowledge of the Mining Laws, enable as to give Special Advice on Mining Properties in Scandinavia, and making frequent visits there, we can supply information at exceptionally moderate charges.

APPROVED PROPERTIES INTRODUCED TO CAPITALISTS.

TO CAPITALISTS.

A GENTLEMAN CAN PLACE THE ABOVE IN COMMUNICATION WITH THE OWNERS OF SEVERAL VALUABLE GOLD MINING CONCESSIONS IN SOUTH AFRICA,

Which will bear the fullest investigation, with a view to the early exploitation of same. Communications, which will be regarded as confidential, should state particulars as to amount of capital available, &c., when an interview could be arranged.

Address, "Auriferous," care of The Mining Journal, 18, Finch Lane, London, E.C.

THE BANK OF AFRICA (LIMITED).

Head Office, 113, Cannon Street, London. SUBSCRIBED CAPITAL £750,000 ***

Paid-up, £250,000; Reserve Fund, £130,000.

General Manager—JAMES SIMPSON, Cape Town.

BRANCHES

Aliwal North, Cape Town, Oradook, East London, Grahamstown, Kimberley
King Williams Town, Oudtshoorn, Paarl, Port Elizabeth, Queen's Town,
Bethlehem, Bloemfontein, Fauresmith, Harrismith, Ladybrand, Winburg,
Durban, Newcastle, Pietermaritsburg, Barberton, Johannesburg, Pretoria,
Vrijheld, Delagoa Bay.

jneid. Delagoa Bay.
lank issues drafts, makes telegraphic remittances, buys and collects bills,
ducts all kinds of banking business.
ducts all kinds of banking business.
E. G. DaVIB. Secretary,
E. G. DaVIB. Secretary,

SOUTH AFRICAN TRUST AND FINANCE COMPANY (LIMITED).

SUBSCRIBED CAPITAL - - £413,686.

BOARD:

B. B. TRENCH, Esq., Chairman. SIR CHARLES METCALFE, Bart. L. BALFOUR BURNS, Esq. | ARCHIBALD PARKER, Esq. Sir STUART S. HOGG. | GEO. H. RAW, Esq.

Head Office:-1, Crosby Square, London, E.C. South African Office: Colonnade Buildings. Johannesburg.

General Manager in South Africa:-W. Y. CAMPBELL: BANKERS:

London and South Western Bank (Limited).

The Company undertakes the following business:—
The skilled investment in South African Mining, Land, or other securities for European investors.
Professional and confidential reporting upon companies, mines, mineral properties, lands, and generally advising European shareholders and others in South African ventures.

To get a segenta on behalf of principal interactions of the control of the c

To act as agents on behalf of principals interested in South African investments, and for the protection of their interests, and, where desired, to Register shares in such undertakings, and to issue

desired, to Register shares in such undertakings, and to issue
Certificates in exchange for same.
The receiving of money on deposit.
Financing or advancing moneys to corporations, companies syndicates, or persons in South Africa.

The purchase and sale of properties, and all classes of South
The purchase and sale of properties, and all classes of South

EDWARD HALSE, A.R.S.M., MINING ENGINEER,

Memb. Inst. Mining and Metallurgy; Memb. N. Engl, Inst. Mining and Mechanical Engineers, &c., EXAMINES & REPORTS ON MINES in REPUBLIC of MEXICO.

POSTAL ADDRESS: APARTADO 512; MEXICO, D.F. CABLE ADDRESS: HALSE, MEXICO. Moreing and Neal's and A. B. C. Codes used,

C. CAMPBELL-JOHNSTON. (OF SWANSEA, INDIA, AND THE STATES.)
THERE YEARS IN BRITISH COLUMBIA.

MINING ENGINEER AND METALLURGIST.

MINING ENGINEER AND METALLURGIST.

POSTAL ADDRESS: BOX 40 VANCOUVER, B.C.

CABLE ADDRESS: CAMPBELL-JOHNSTON, VANCOUVER.

A.B.C. CODE.

MINES EXAMINED AND REPORTED ON, DEVELOPED

AND MANAGED.

Furnaces, Mills, and Mining Plants Planned and Erected.

ORES BOUGHT AND SOLD.

THE GOLD FIELDS OF WESTERN AUSTRALIA.

ALBERT F. CALVERT, MINING ENGINEER.

Author of "Western Australia and its Gold Fields"—"The Discovery of Australia"—"The Mineral Resources of Western Australia," &c., &c. Editor and Proprietor of the West Australian Review, a Weekly Newspaper devoted to Westralian interests.

Undertakes MANAGEMENT, INSPECTIONS, SURVEYS, and guarantees reliable Mining Reports on all West Australian and other Mines.

reliable Mining Reports on all West Australian and other Mines.

Writing to the Financial News of 23rd November, on the Gold Fields of Western Australia, Lord Percy Douglas says:—"From his intimate knowledge of the subject, gained by personal experience in Western Australia, as well as on nearly every gold field in the world, I consider there is no one better qualified to express an opinion on the subject than he (Mr. Albert F. Calvert). In fact, he is the only man that I know of in this country who has visited all the gold fields of this immense colony."

Address - 47, Old Broad Street, E.C. Telegrams and Cables-" Quarterage, London."

BRENTON SYMONS, M. I. Civ. Eng., F.C.S.

CONSULTING MINING ENGINEER,

TRURO, CORNWALL.

Author of Geology of Cornwall; Hydro-Metailurgical Processes; 10 years Copper Smelting in Turkey; Geological Maps of Cornish and Welsh Mining Districts, &c. Twenty years' experience abroad.

E. HENRY DAVIES, F.G.S.,

CONSULTING MINING ENGINEER, 6, GREAT WINCHESTER STREET, LONDON, E.C.

Author of "Machinery for Metalliferous Mines,"
Joint Author of "Metalliferous Mines and Mining,"
"Earthy and other Minesal and Mining,"
Undertakes the INSPECTION and MANAGEMENT of MINES at home and abread, and the introduction of approved Properties to Capitalists,
Minerals of all descriptions purchased in large or small quantities.

J. A. JONES, Mining Engineer, (M.Inst.M.M., M.N.Eng.Inst.M.M.E.)

GIJON (ASTURIAS), SPAIN.

AUSTRALIAN MINERALS.

COLLECTIONS of AUSTRALIAN MINERALS for Show Case, or for technical purposes supplied to order. Price from £2 2s. upwards. On receipt of order with remittance a collection will be made up and dispatched without delay.

MINES REPORTED ON.

J. B. AUSTIN, Mineralogist, Adelaide, S.A.

CHARLES SMITH, MINING AGENT, &c.,

EXCHANGE, MELBOURNE, AUSTRALIA. (MEMBER MELBOURNE STOCK EXCHANGE.)

Reliable Mining Reports; also Information respecting Colonial Investments furnished on application. Fee, £5 5s.

J. S. MERRY AND CO., ASSAYERS AND ANALYTICAL CHEMISTS, SWANSEA.

200 Poorman, 3s 3d 5 10 Carn Bres, 5% 1 250 West Argentine, 1s 3 2 20 East Pool, 7% 5 50 South France, 9s 20 Special business in Cornish shares. 50 Wheal Kitty, 7s 9 10 Tincrofts, 10 20 Cook's Kitchen, 5s, 50 Phosnix United, 5s 200 Englehawks, 1s 9d 250 Spitzkop, 5s 200 Montana, 13s 6d 500 La Pinta, 7d. 200 Kaboonga 1s 5d 200 Kapanga, 3s 3d

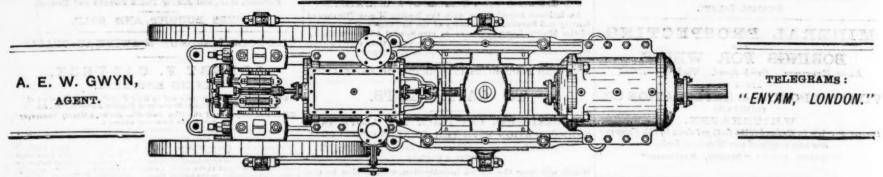
Apply, W. SEWARD and Co., 7. Drapers' Gardens, E C, Telegraphic Address-" SEWARD, London."

DVERTISEMENTS INDEX

(THOSE WITHOUT NUMBER OF PAGE DO NOT APPEAR IN TEIS ISSUE.)

| | PAGE | A | PAGE | | PAGE. |
|--|--|--|-------------------|--|---------------------------------|
| Aird, J. Ashbury Railway Carriage and Iron Co. (Ltd.) Railway Carriages, &c. Austin, J. B. Mineralogist | 884 837 | Frictionless Engine Packing Company Engine Packing, &c Galloway's (Ltd.) Steam Bollers Gates Ironworks Co Bock and Ore Breaker | 862 | Pass and Son Phosphor Bronze Co. (Ltd.) Buyers of Lead Ashes, &c. Phosphor Bronze Co. (Ltd.) Welded and Rivetted Pipes Publications Welded and Rivetted Pipes | 850 884 863 860 |
| Bandell, H. E. Bank of Africa, (12d.) Banking Bennett, Sons, and Co. Bennett, Sons, and | 859 | Gilkes and Co Turbines Green, G Ore Dressing Machinery Halso, E Mining Engineer Turbines | 837 | Robey and Co. Roburite Explosives Co. (Ltd.) Ropeways Syndicate Aerial Wire Ropsways Rose, James New Guide to the Iron Trade | 863 |
| Bute Works Supply Company (Limited) Steel Rails, &c. Business Cards Mining Engineer Cambrel School of Mines | 859 837 837 | Holman Bros. Rock Drills and Compressors Howes, S. Rock Drills and Compressors Humboldt Engineering Works Co. Mining Machinery. Humble, S., jun. Hand Power Fan Huntington, Professor | 841 840 833 | Sales by Auction Behram and Oo. Beward, William Share Deales Shipping. Smith, Ohas. Mining Agent | 859 840 837 859 837 |
| Cannock Chase Colliery Company Casel Gold Extracting Co. (Ltd.) Champion Rock Borer Co Clarkson, T. Clarkson, T. Clarkson, T. Clarkson, T. Concentrator (Ltd.) Dry Concentration | 837 861 840 839 841 859 | Ingersoil-Sergeant Drill Co. of Americs. Rock Drills and Compressors Ireland, James Colliery Regdy Reckmar Jones, J. A Mining Engineer | 860 | South African Trust and Finance Co. (Ltd.) Investments, &c. Spencer, John Iron and Steel Tube. Stanley, W. F Mathematical Instruments Stewart and Ciydeedale Iron and Steel Tubes Symons, Brenton Iron and Steel Tubes | 837 839 838 837 |
| Companies and Logal Announcements Control Fowder Co. (Ltd.) Explosives The control Fowder Co. (Ltd.) | 837 863 842 | Kupp Grusonwerk Ore Extraction Machinery Larmuth, T., and Co Lancashire Patent Belting Co. Lancaster and Tonge Mining Specialities Lancaster and Tonge Steam Pittons | 852 861 839 | Tack and Co. (Ltd.) Tangves Limited Tangves L | 859 859 |
| Davis, Henry Davis and Son Davis and Son Davis, A. and Z. Book Drills | 837 841 837 862 840 | Lewis and flons Lioyd and Lloyd Tubes Lioyd and Lloyd | 838 864 837 | United Asbestos Co. (Ltd.) | 861 861 |
| Delta Metal Co. (Ltd.) Dixon and Co. Iron Roofs and Buildings Elliman, Sons, and Co. Embrocation | 839 | Martin and Pethybridge Stone Breakers and Ore Crushers Martin and Pethybridge Stone Breakers and Ore Crushers Merry and Oo. Stone Breakers and Ore Crushers Assay Laboratory Merry and Oo. Assay Laboratory Martin and Oo. Assay Laboratory Martin and Ore Crushers | 837 837 | Walker Brothers | 859 837 |
| Feiten and Guilleaume | 859 862 838 | Newton, Chambers and Oo. (Ltd.) "Izal," Sanitary Protection Nobel's Explosives Co. (Ltd.) Water Cartridges, &c. Pacific Mining Agency and Trust Company Commission Agency Parkin Signal Belis | 839 850 861 | Wellington and Co. Rock Drills Westberdon, J. H. "Monarch "Rock Drills Wiggin and Co. (Ltd.) Nickel Refiners Wood, Charles Portable Railways, &c. | 850 |

INGERSOLL-SERGEANT PISTON INLET COLD-AIR COMPRESSORS.



A HIGH DUTY AIR COMPRESSOR. STEAM OR BELT ACTUATED. DUPLEX CORLISS AIR COMPRESSORS. Write for Catalogue.

THE INGERSOLL-SERGEANT DRILL CO., 114A, QUEEN VICTORIA ST., LONDON, E.C.

MAKERS OF ALL CLASSES OF IMPROVED

MINING, MILLING, SMELTING, CONCENTRATION AND LEACHING MACHINERY.

HIGH-CLASS CORLISS STEAM ENGINES WITH EFFICIENCY GUARANTEED.

BOILERS. PUMPS. ROCK DRILLS. DIAMOND DRILLS, COMPRESSORS. PERFORATED METAL.

> FINE CRUSHING ROLLS. RIEDLER PUMPS AND COMPRESSORS. SCHWŒRER SUPERHEATER.

PELTON AND TURBINE WATER WHEELS.

HOISTING ENGINES

OF BEST MODERN DESIGN

Direct Acting or Geared, Flat or Round Rope Drums.

COMPOUND ENGINES

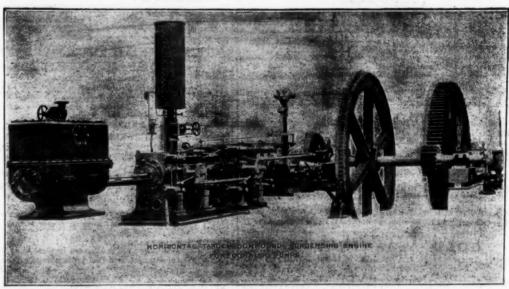
OF SPECIAL DESIGN FOR HIGH DUTY. Cornish Pumps

FOR ANY DEPTHS, SIMPLE OR COMPOUND.

WORKS: ERITH, KENT. CHICAGO, ILL, USA.

OFFICE: 43, Threadneedle Street, LONDON, E.C.

FRASER AND CHALMERS, LIMITED.



MINING TUBES"

WITH PATENT FLANGES AND SCREWED AND SOCKETED OF ALL KINDS.

EDWIN LEWIS & SONS,

WOLVERHAMPTON. -

W. F. STANLEY

Mathematical Instrument Manufacturer To H.M. Government, Council of India, Science and Art Department, Admiralty, &c.

MINING, SURVEYING AND DRAWING INSTRUMENTS

OF EVERY DESCRIPTION, OF THE HIGHEST QUALITY AND FINISH, AT THE MOST MODERATE PRICES. Price Lists post free.

Address-Great Turnstile, Holborn, London, W.Q. GOLD MEDAL, Inventions Exhibition, 1886 Mining 1890

"LANCASTER"

ARE ALWAYS SENT ON APPROVAL LANCASTER AND TONGE, PENDLETON.

> GOLD MEDAL, LONDON, 1892. GOLD MEDAL, MELBOURNE, 1881.



IRON and STEEL TUBES (lap or butt welded) and FITTINGS for Gas, Bleam, Water, Hydraulic, Compressed Air, and Hesting Purposes, Black or Galvanised in stock to 3 inches diameter. Bolier and Stay Tubes, Water Mains, Well Tubes, Pipe Lines, Telegraph Poles, Heating Coils, &c.

JOHN SPENCER, Globe Tube Works, WEDNESBURY.

THE INDIAN ENGINEER.

ILLUSTRATED WEEKLY JOURNAL

ENGINEERS IN INDIA AND THE EAST.

The "INDIAN ENGINEER" contains the latest and most authentic infor-lation on all subjects connected with Engineering enterprise in India and the

East. Subscribers when in England can make use of our London Office (1-2, Victoria Mansions, Westminster, S.W.), and can have letters addressed there and for. arded when travelling.
Correspondence invited on any subject which may be of interest to the pro-

fession.

RATES OF SUBSCRIPTION (payable in advance, including a copy of the INDIAN ENGINEER'S DIARY):—

| DIAN EXUINEES | DIAN EXUINEE

Published at 5-6, Government Place, Calcutta.

THE

HUMBOLDT ENGINEERING WORKS Co., KALK, near COLOGNE. MAKERS OF

MINING, ORE DRESSING & COAL WASHING

MACHINERY. COMPLETE PLANTS ALREADY SUPPLIED OF CAPACITIES UP TO 2000 TONS IN 10 HOURS,

REDUCING MACHINERY PATENT LINKENBACH TABLES, PERFORATED PLATES for enriching Slimes & Sandi GOFFERED PLATES FOR FLOORING, PIPE AND STAMP CABLE TRENCHES, ETC. BATTERIES, SCREEN AND

THOMMELS.

UMPING ENGINES PLANT of all sizes. PATENT CHAIN HAULAGE, CONVEYORS, ELEVATORS of all kinds. ROCK DRILLS AIR COMPRESSORS

St.,

6

WINDING

in

THE WORKINGTON HEMATITE IRON AND STEEL COMPANY (LIMITED), WORKINGTON.

19rn June, 1894.

MESSRS. S. MALCOLM & CO.,

95, PILGRIM STREET, NEWCASTLE-ON-TYNE.

DEAR SIRS,

We have had this Machine in almost daily operation for the past 12 months, mostly for mixing our Sample Ores.

Clarkson's Sampler.

We find it to work quite up to your promises, does its work well, and saves our Chemist a lot of time,

Now that we have used it we think it indispensable Yours faithfully,

(Signed) JOHN TATE, Manager.

THEY HAVE ALSO BEEN ADOPTED AFTER FAIR TRIAL BY

BROKEN HILLPROPRIETARY COMPANY: PESTARENA UNITED GOLD MINING COM-PANY(LIMITED), ITALY; ROYAL SCHOOL OF MINES; VIVIAN AND SONS, SWAN-SEA; ELLIOTT'S METALCOMPANY, PEM-BREY; USINE DE DESARGENTATION, HOBOKEN LEZ ANVERS; LOCKE LAN-CASTER AND CO., LONDON; JOHNSON AND SONS, LONDON; UNITED MEXICAN SILVER MINES:

AND MANY OTHERS.

T. CLARKSON, ENGINEER, 59, Mark Lane, E.C.

NON-

POISONOUS

An Antisepticof

An Antisepticol greater power, than Pure Card bolic Acid, but entirely free from the dangers and objections attending the use of Carbolic disinfectants.

ShaketheBottle

Note Directions for use on the other three sides of this bottle.

Newton, Chambers

AND CO. (LTD.)
Sole Proprietors and
Manufacturers.

THORNCLIFFE,

Near SHEFFIELD.

ants.

be instantly killed with IZAL DISINFECTANT.

As the surest means of protection against Diphetheria, Scarlet Fever, and all contagious diseases, adopt a daily system of disinfection with IZAL, which speedily kills offensive smells and all infectious germs. Diluted in the proportion of 1 part of IZAL to 200 parts of water, or 1 ounce of IZAL to 10 pints of water, it will effectually kill the germs of Diphtheria, Small pox, Cholers, Scarlet Fever, Influenza, Typhus, and As the surest means

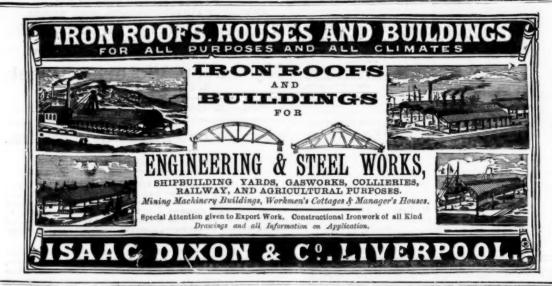
IZAL is so cheap that in every institute, and business estab-lishment, sinks, traps,pans, W.C.'s, drains, gutters. and all other sources of offen-sive odours can be flushed at fractional cost, a 2/6 bottle, a handy size for family use, making 30 gallons of power-ful germ-destroy-ing, reliable disinfectant.

IZAL is sold in bottlesstis., 2s. 6d., and 4s. 6d.; also in gailon time at 20s. This letter larecom-mended forlargecon-sumption, as it will bear dilution with water to the extent of 2c0 gailons, and will then be suffi-ciently strong to alla destroy all infec-tious germs. A ram-ple bottle or tin sent carriage paid in the United Kingdom for postal order. The Izal Rules for Diein-fection may be had free on application to the sole Manu-facturers.

NEWTON, CHAMBERS & CO. (LTD.), Thorncliffe Sheffield; 19, Great George Street, London, S.W.; and Thorncliffe House 331, Gray's Inn Road, London, W.C.

HERBERTON (WILD RIVER) TIN LODES NORTH QUEENSLAND.

Every information relative to the progress of lode-tin mining in the Wild River district(termed by geologists "The Cornwall of Australia") can be ob-lained by communicating with the undersigned. OHARLES JENKEN. "Herberton Advertiser" Office, Merberton, September, 1982,



MANUFACTURERS OF

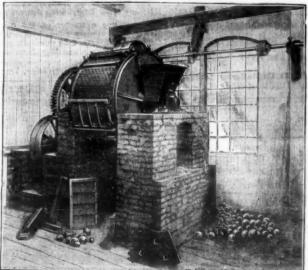
Chilled Cast Iron, Cast Steel and Malleable Iron Articles. MAGDEBURG-BUCKAU, Machinery and Apparatus for treatment of Ores of all description.

GOLD EXTRACTION MACHINERY:

(Laszlo' Amalgamators giving 20 to 40 per cent, more Gold than others).

SILVER EXTRACTION MACHINERY.

Francke's system. (15 to 20 per cent. better results than by old methods).



ORE-CONCENTRATION System of Bilharz.

DRY SEPARATOR

PAPE-HENNEBERG.

3. Disintegrating Machinery of all kinds, such as Patent Ball Mills for Ores, Quartz, Cement, Basic Slag Grinding, &c. Excelsior Mills for Food Products, also for Tanneries, Chemical Factories, Sugar Factories, &c. Stone Breakers, Roller Mills, Crushers, &c., &c., Runners,

Whole installation for Cement, Porcelain, Emery, Manure, Gypsum, Bone, & Ore Mills. HYDRAULIC PRESSES. LEAD PIPE PRESSES, COMBINED COFFEE GRINDING AND CLEANSING MILLS. ROLLS FOR ALL METALS. RAILWAY MATERIAL. CRANES.

CATALOGUES IN ALL LANGUAGES.

STAMM, 3, EAST INDIA AVENUE, E.C. AGENT:



OGLE'S PATENT.)

Air than any other Drill at the same time giving the most effectual results.

COMPRESSORS

WITH COMPOUND AIR AND STEAM CYLINDERS, Fitted with SCHRAM'S Inlet and Outlet Velves giving the greatest efficiency

SUPPLIED TO THE INDIAN, COLONIAL, AND OTHER GOVERNMENTS.

2500 IN USE IN ALL PARTS OF THE WORLD.

ESTIMATES AND FULL PARTICULARS ON APPLICATION

RICHARD SCHRAM & CO., 17a, Great George St., Westminster, S.W. TELEGRAMS "SCHRAM, LONDON," AI, A.B.C. and The Engineering Telegraph Codes Used.

From His Grace the Duke of Butland.

Belvoir, Grantham, December 1st, 1879.

SIRS,—Elliman's Royal Em-procation is used in my stables; I think it very useful. RUTLAND.

Master of the Belvoir Hounds.

From the Earl of Harrington January 9th, 1889.

Size,—Elliman's Royal Em-procession is used in my stables, and I consider it the best that I an obtain. HARRINGTON. r of the South Wilts Hounds.

m Major M. J. Balfe, South Park.

June 16th, 1892. SIRS,—Elliman's Royal Em-recation is used in my stables, ad I can highly recommend it,

M. J. BALFE. er of the Ros County Staghounds

2/2/63/6 JARS ECONOMY ELLIMAN SONS 4 G IN THE STABLE

USING ELLIMANS EASIER HAULAGE

From Lord Haddington, Tyn-ingham, Prestonkirk, N B. December 27th, 1885. Sies, -Elliman's Royal Em

brocation is used in my stables, and I consider it indispensable in any stable, but especially in the stable of a Master of Hounds. HADDINGTON.

Master of the Berwickshire Bounds

From R. Burdon Sanderson Esq., Warren House. Belford.
July 10th, 1892.
SIRS,—Elliman's Royal Erprocation is used in my stables, and I consider it very useful.

R. BURDON SANDERSON. Master of Percy Foxhounds From Wm. J. Buckley, Esq., Penyfai. Llanelly, July 16th, 1892.

DEAR SIRS,-I have much pleasure in recommending your Royal Embrocation. I always keep a stock in my stables and kenlels. My farm bailiff has also found it of much value among my herd. WM. J. BUCKLEY.

Master of Carmarthenshire Foxhounds.

DELTA METAL

FOR ALL ENGINEERING WORK, STRONGER AND MORE DURABLE THAN STEEL

Specially Adapted for MINING WORK on account of its very high Resistance to Corrosion.



CAST, FORGED, STAMPED, ROLLED, DRAWN For full Particulars and Prices apply to

THE DELTA METAL COMPANY (Ltd). 110, Cannon Street, London, E.C.

ms :- " DELTA," London. Telephone No. 11292. REVISTA MINERA - METALURGICA Y DE INGENIERIA.

The OLDEST TECHNICAL PAPER in SPAIN. Gives Account of everything connected with Mining, Metallurgy, and Engineering interest in the country. Enjoys a large circulation.

Published Weekly. Subscription £1 per annum. MADRID OFFICE-VILLALAR 3.

LONDON OFFICE-HENRY HEMANS & Co., 35, Queen Victoria St. The Best Medium for Advertising. Terms moderate.

LIVERPOOL JOURNAL OF COMMERCE

Is the best FINANCIAL and COMMERCIAL PAPER in the Provinces.

Is now Enlarged to Eight Pages. Contains more Commercial and Shipping News than any other Proprietor, CHARLES BIRCHALL, 32, Castle Street, Liverpool. LONDON OFFICE.—38, GRACECHURCH STREET.

than any other Engineering Journal now published.

The unique character of the contents of the 'Engineering Review" has already secured for it a large and influential circulation. It is, therefore, an unusually good medium for the announcements of Engineers and Manufacturers.

Annual Subscription, 7s.; single copies, 6d.

Offices: -29, GREAT GEORGE STREET, LONDON

Gold Medal, International Exhibition, Paris, 1889. Gold Medal, Exhibition of Mining & Metallurgy, London, 1890.

PURE ALUMINIUM 98 to 99½ per cent. pure; guaranteed 98 per cent. minimum.

For Iron and Steel Workers,

Founders, Engineers, And all Metal Workers.

For prices of above apply to

HENRY R. MERTON & CO.,

LUMIN 2, Metal Exchange Buildings, Leadenhall Avenue,

> LONDON E.C.

Sole Agents in Great Britain and Ireland for the Aluminium Industry, Co., Neuhausen, Switzerland.

"CHAMPION"

Has all the latest improvements resulting from 19 years' practical experience in constant work.

Unrivalled for its efficiency and durability in Sinking Shafts, Driving Levels & Tunnels.



THE CHAMPION ROCK-BORER AND AIR COMPRESSOR CO.

E. P. and H. P. VACHER,
MAKERS OF AIR COMPRESSORS, ROCK DRILLS, TURBINES, WATER WHEELS, WATER MOTORS, RAMS,

MACHINERY. MINING 63, Queen Victoria Street. LONDON, E.C.

Telegraphic Address: "TURNSCREW, LONDON."

THE ENGINEERING REVIEW.

Edited by J. STEPHEN JEANS.

The want of a good periodical epitome of the Engineering literature of the day, which has long been felt, will be largely and effectively met by the "Engineering Review," the first number of which (new series) appeared July 20th. It is, therefore, likely to be appreciated by all who are engaged in or studying applied science, whether as engineers, chemists, manufacturers, merchants, manufacturers, or students. managers, pupils, or students.

The new Journal aims at presenting a synopsis of the principal novelties in the Engineering appliances, inventions, applications, projects, and undertakings of the day, as collated from the various weekly, monthly, and other publications that represent this art and profession in its various forms. These abstracts are sufficiently full to convey an adequate idea of the scope and character of the subject matter dealt with.

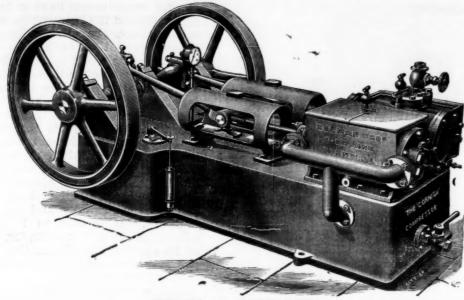
The "Proceedings" of Engineering and kindred technical Societies, and the newest books relating to Engineering Science, are dealt with in the same manner, and original articles are contributed by authorities in different branches of Engineering

With a view to securing propriety of selection and accuracy of statement, abstracts are generally either prepared by, or submitted to the approval of, recognised experts.

The "Engineering Review" contains more varied literary matter

Bros., Camborne,

Patentees and Sole Makers of "THE CORNISH" ROCK DRILL and "THE CORNISH" COMPRESSOR,



RECORD OF WORK DONE

At Botallack Mine, St. Just, Cornwall, TWELVE MEN with TWO new Patent CORNISH ROCK DRILLS drove, sunk, and rose 288 FATHOMS in 12 MONTHS, equal to five times the Speed of Hand Labour

At Wheal Grenville Mine, Camborne, Cornwall, SIX MEN with TWO new Patent CORNISH ROCK DRILLS started from the 150 FATHOMS level and put up in EIGHT MONTHS a 11 FEET by 5 FEET PERPENDICULAR RISE 46 FATHOMS 5 FEET 6 INCHES, and about midway drove 1 FATHOM 5 FT. No communication of any kind was effected until holing to the Shaft brought down from surface.

Estimates for ROCK BORING PLANT and GENERAL MINING MACHINERY on Application.

London Representative: Mr. E. M. TOUZEAU, Leadenhall Buildings, London, E.C.

Cornwall. JOHN DAVIS & SON.

ALL SAINTS WORKS, DERBY; 118, NEWGATE STREET, LONDON, E.C.

ELECTRICLIGHT & TRANSMISSION OF POWER PLANTS

Jeffrey Machines for Undercutting Coal,

WORKED EITHER BY ELECTRICITY OR COMPRESSED AIR.

OVER 500 IN USE.

FULL PARTICULARS UPON APPLICATION



REVISED CATALOGUE UPON APPLICATION.
SEC. A. MATHEMATICAL, MINING INSTRUMENTS, MINERS' LAMPS, &c. SEC. B. ELECTRICAL PLANTS AND FITTINGS.

HENDERSON'S RAPID TRAVERSER.

THE ENGINEERING AND MINING JOURNAL:

Every Miner, Metallurgist, Investor in Mining Property, and every Dealer in Minerals and Metals should subscribe for it.

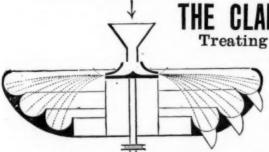
Contains everything of interest and value in mining and metallurgy. The fullest mining news. The best coal, metal, and mining stock masket reports It is the BEST ADVERTISHING MEDIUM for all kinds of Machinery. Tools Hardware, and Supplies used in the mining regions; for Electrical Appliance, and Machinery; for Metals of all kinds; for Mining Property for Bale, &c.

Subscription Price 8.00 a Year for the United States, Canada and Mexico \$7.00 a year for other Countries in the Postal Union. Published Weekly. THE SCIENTIFIC PUBLISHING COMPANY

Booksellers and Publishers of Technical and Scientific Books 253, BROADWAY, NEW YORK. LONDON OFFICE : 20, BUCKLERSBURY, E.C.

Highest Award at the Mining Exhibition, 1890.

CONCENTRATION



THE CLARKSON-STANFIELD CONCENTRATOR (LIMITED), are successfully Treating the ores of Gold, Silver, Copper, Lead, Tin, Zinc, Cobalt, &c., &c. of all degrees of fineness, from 30 to the finest meshes by their NEW MACHINERY which may be seen in operation at

6, COLONIAL AVENUE, MINORIES, LONDON, E.

Homogeneous substances, such as Emery, Glass, Sand, Sulphur, Black Lead, &c., graded according to size in one operation.

Terms for Experimental Concentration, and for Supply of Machines on Application.

NEW PATENTS.

LIST of APPLICATIONS for New Patents relating to Mining Metallurgical, Engineering, Railway and kindred matters, specially compiled from official sources for the "Mining Journal" by Messrs. Bayner and Company, Patent Agents, 37, Chancery Lane, London, W.C., who will forward all information regarding them free on application.

137.4 Ludwig Jaroljnick, 82', High Holborn, London,—Improvements in or relating to the exploding of blasting charges in mines.—July 16.

13761 Samuel Trapp, 45, Southampton Buildings, Onancery Lane, London,—Improvements in and relating to regenerative and other furances.—July 17.

13774 John Ernest Wallis and Wallis and Stevens (Limited), 28, Southampton Buildings, Chancery Lane, London,—An improvement in valve gear for steam engines working expansively.—July 17.

13785 William Phillipe Thompson, 6, Lord Street, Liverpool,—Improvements in steam engines and the like,—July 17.

13789 John Douglas-Foulis, 6, Lord Street, Liverpool,—A new or improved boiler or steam pipe covering or cement for preventing the radiation of heat.—July 17.

of hest.—July 17.

1340 George William Linford, 32, Dalston Lane, London.—A double-action asfety stop valve.—July 18.

13842 Eustace Ernest Wigger! Builter House, Billiter Street, London.—Improvements in pistons.—July 18.

13855 Edgar Arthur Ashcroft, 53, Chancery Lane, London.—An improved process of treating refractory ores, and apparatus to be used, therein.

-July 18.

process of treating refractory ores, and apparatus to be used, therein.

-July 18.

William Taylor Gibbs, &C. Queen Victoria Street, London.—Process for
the treatment of nickeliferous iron cress.—July 18.

Herry Charles Barker and Richard Pearson, & Union Court, Old Broad
Street, London.—Improvements in the method of extracting gold
from gold ores, quarts, and surilerous alluvials, and collecting and
retaining float gold.—July 18.

13945 Gustave Riche, 11, Southampton Buildings, Chancery Lane, London.—
An improved pump, which is also useful as a hydraulic engine or
motor, and as a liquid meter.—July 19.

14020 William Pietcher, 48, Southampton iduidings, Chancery Lane, London.—
Improvements in motive power engines.—July 20,

John Bloor and Aifred Welburn, 104, Colmore Row, Birmingham.—Improved means to be employed in connection with ateam boilers for
consuming the smoke and gases.—July 21.

1405 George Vincent Maxted and Frank Knott, 28. Southampton Buildings,
Chancery Lane, London.—Improvements in shaft bearings.—July 21.

14154 Wilbid Schuite and Frederic Antoine Sapp, 37, Newgate Street,
London.—Improvements in the manufacture of cyanide of potassium and in furnace for producing cyanide of ammonis.—July 21.

SPECIFICATIONS PUBLISHED. SPECIFICATIONS PUBLISHED.

the sinking of a 18 feet ventilating shaft 250 yards to the ellistone seam.

14,135, Hansmann, lubricating steam engine cylinders, 1891; 15,875, Allen and Davy, cast iron and steel; 1893; 16,300, Emorre, shaft bearings, 1892; 16,731, Boyes, steam boilers, 1893; 2170, Hargreaves and Hudson, steam engines, 1894; bearings, 1893; 2170, Hargreaves and Hudson, steam engines, 1894; Fencing (Edinburgh.)—For the erection of a march fence between the farms of Dati and Barrs, on Loch Eilve, Argylishire. Specifications to be obtained on application to Mr. Dunn, Breadalbane Estate Office, Kenmore, or from Mesers, and F. Anderson, W.S., 43, Castle Street, Edinburgh.

FOR MINE, QUARRY, RAILWAY, AND ENGINEERING WORK, STORES, &co.

"." We shall be obliged by being promptly placed in possession of particulars regarding contracts open for competition, and of the results of successful tenders. In the latter case contract prices should be given.

The date given is that by which tenders must be delivered, in nearly all cases further anter poen is and by bottom of an application at the addresses given. In applying for such thename of " The Mining Journal" should be mentioned as the original urce of the information, concerning which further particulars are required,

HOME CONTRACTS.

Reconstruction of Bridge, August 7 (Theatr, Berks).—For the reconstruction in iron of a bridge carrying the railway over the Boly Brook, near is Theate Station, for the Great Western Bailway Company. Plans and speciation may be seen, and forms of tender and bills of quantities obtained at see office of the Engineer at Reading Station between 10 a.m. and 4 p.m. enders to be addressed to Mr. G. K. Mills, secretary, Paddington Station, onder.

Tenders to be addressed to Mr. G. K. Mills, secretary, Paddington Station, London.

Iron Foofing, August 7 (Tipica).—For the supply and erection of iron roofing for the new goods shed at the Tipion Basin, near Tipion, for the Great Western Railway Company. Plans and specification may be seen and forms of tender and bills of quantities obtained at the office of the Engineer at Wostern Railway Company. Plans and specification may be seen and forms of tender and bills of quantities obtained at the office of the Engineer at Wosterhampton Station between 12 a.m. and 4 p.m. Tenders, addressed to Mr. G. K. Mills, secretary, Paddington Station, and marked outside "Tender for Roofing at Tipton," will be received on or hefore August 7.

Girdor Bridgos, August 8 (Londos, E.C.) - For the supply of plate girder bridges, for the Sombay, Baroda and Central India Railway Company, Tender forms, and the specification to be obtained at the offices, 43, Finsbury Circus, E.C., on syment of £1 is.

Italiway Stores, August 8 (Londos, E.C.)—For the supply of (1) Healway Stores, August 8 (Londos, E.C.)—For the supply of (2) Healway Stores, August 8 (Londos, E.C.)—For the Southern of the Company (Limited) as per specification and drawings which may be seen at the office of the company, 44, Finsbury Circus, E.C.

Wheels, August 8 (India Office, S. W.).—The Secretary of State for India in Council is prepared to receive tenders to supply wheels for locomotives. The conditions of contract ape cobtained on application to the Director-General of Stores, India Office, Whitehall, S.W., and tenders are to be delivered at that office by 2 p.m. on August 2.

I Blores, India Office, Whitehall, S.W., and tenders are the Stores, India Office, Whitehall, S.W., and tenders are the Coal, August 18 (Wigton).—For the supply of about 800 tons of washed outs or gas coal for one year ending August 31st, 1895, for the Wigton Gaslight and Coke Company (Limited).

Shaft Sinking (Sheffield).—The Bheffield Coal Company Invite tenders for he sinking of a 15 test ventilating shaft 250 yards to the Slikstone seam, Specifications, section, &c., to be had on personal application to Mr. Walters, the manager.

OUR INQUIRY COLUMN.

TO CORRESPONDENTS.

repondents will please take note that all communications will in future to answered in this column and not through the medium of the post. All questions and replies should be accompanied by the name and address of the writer.

REPLIES.

R. S .- There are no dealings in these shares,

G. C.-No; not just at present.

BERKS.—Considering the present low price of silver it is difficult to advise you. We do not think you could do much harm, however, in buying a small quantity. If there were any prospect of silver improving we would not he

WILLIAM .- The final call has yet to be made.

N. G .- Yes, if the selection made is a careful one.

A. B.-We cannot recommend you to buy them.

Galera.—An article on the subject will, in all likelihoods, appear next week, from which you will be able to gather the information you want.

THE Warren and May sulphide concentration plant, which has been doing good work at Broken Hill Proprietary Block 10, is to be increased from its present capacity of, say roughly, 250 tons of crude ore per week to between 300 and 400 tons per week. Accordingly, operations at the jiggers are now suspended to permit of the alterations being made, and which will take some two months to accomplish. At the meeting of Block 10 shareholders the directors expressed a determination pot to apand much money on machinery until a determination not to spend much money on machinery until the treatment of the sulphides had been demonstrated beyond doubt. So satisfied are they, however, with the work of Captain Warren's plant that they have sanctioned its enlargement, or, more correctly speaking, completion, as stated.

DAVEY, PAXMAN &

Engineers, Colchester.

MAKERS OF ENGINES, === BOILERS. PUMPS.

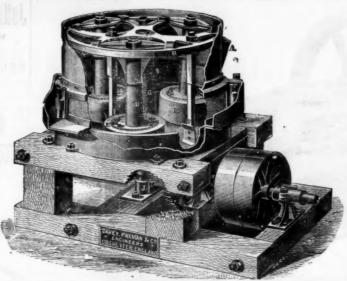
MSMISSION OF POWER PLANTS

AND ALL DESCRIPTION

MACHINERY FOR MINING.

DAVEY, PAXMAN & Co., are SOLE Licensees and Manufacturers of the Huntington Patent Centrifugal Roller Quartz Mill for the whole World, excepting the United States of America. Mexico, and Australasia.

Telegraphic Address:



Huntington's Patent Centrifugal Roller Quartz

Mill for fine pulverizing in Concentration.

Full Particulars on Application to

gold put into it.

Colchester.

D. P. & Co., after a great number of

careful experiments have so improved and perfected the Huntington Mill that

it must now be classed among the greatest inventions of the age. The excellence of its work is undoubted, and

its superiority over Stamp Mills will soon cause a revolution in its favour

for Quartz Crushing. Its first cost, and cost for freight and transit is much less than for stamps, it absorbs about

half the power for the same output, and is continually crushing. It can be fixed and started in 12 hours, requiring for

foundations only two pieces of timber

12 in. by 12 in. by 14 feet long, is more reliable than stamps, and has perfect

delivery. It is used to its greatest advantage on gold quartz, for, because

of its excellent amalgamating properties, it catches about 75 per cent. of the

LONDON OFFICE "PAXMAN, COLCHESTER." 78 [late 139], QUEEN VICTORIA STREET.

HIS property is situated in the Vryheid district, near the battlefield of Ulundi. It consists of the farm Tusschenbyde, and several other properties in the district. On the farm Tusschenbyde conglomerate was discovered by a prospector named Lea, who floated it into a syndicate in Pietermaritzburg. Prospecting work then ensued. The reef found was so low in named Lea, who floated it into a syndicate in Pietermaritzburg. Prospecting work then ensued. The reef found was so low in grade that the syndicate contemplated abandoning the property, when Messrs. Denny, Dalton, and Paulson undertook the further development, and to form a syndicate. They did so, becoming large holders. After prospecting over a large area, various portions of the property were offered to capitalists—notably to Mr. Percy Whitehead, who, after sending two experienced Rand men to examine and report, decided not to touch

Since then syndicates have been formed in Manchester, Liverpool, Glasgow, and in other parts of England. Options of land on this property have been acquired by these syndicates, who have paid very remunerative prices. The Stanhope Gold Mining Company has also seemed an option from the Denny Dalton

At present the prosecution of the works now being erected at the mine (and which are intended to revolutionise all known methods of gold recovery in use on the Rand) are far from completion. At least six months will be required before these works are ready to enter upon a trial of gold recovery from the

works are ready to enter upon a trial of gold recovery from the ores.

The process is a most complicated one. The ore passes through no less than 17 different machines, or manipulators, before the gold recovery is expected. They are a complication of elevators, Gates' crushers, Kromm rolls, Denny Watson pans, roasting furnaces, concentrators, gas producers, classifiers, slime pits, Cornish pumps, &c., which, as a whole, for effective results is quite beyond description. This machinery will be driven by hive separate engines, totalling 60 h.p., scattered about the property. To work these 16 hands of three shifts each will be needed, or 45 hands. Economical working cannot be expected. It is evidently a misnomer to term these methods a cheap process, but rather one of the most costly adopted for gold recovery, as 45s, per ton working cost may be expected to be the outcome. This plant is expected to have a capacity of 3000 tons per month, though if a pump should get out of order, it will seriously affect the whole complication.

The engineering is by no means of the high quality we were led to expect from the reports issued. New departures from the most primitive experiences are all about. In one instance heavy massonry to support a pair of Kromm rolls has been placed on the grass, though a sound foundation of bed rock is only a few feet below. Some of the masonry is already badly cracked. The

the grass, though a sound foundation of bed rock is only a few feet below. Some of the masonry is already badly cracked. The Denny Watson type of heavy pans are placed on very light timbers. Water conservation in dams is being achieved with walls constructed of loose earth and boulders, with a thin puddle walls constructed of loose earth and boulders, with a thin puddle of clay between dry stone walls. One dam is in such close proximity to the mill that its breakage will endanger a large portion of the machinery. A 10 stamp mill was erected some time ago, and a trial crushing could have been made before putting down such a costly, elaborately novel plant. The mine is situated up the creek some 500 yards above the mill site. The reef is exposed on both sides of the creek, and there are nine drives, totalling 1400 feet of development. As the reef dipa about 7°, it is nearly a flat sheet of conglomerate, therefore about 7°, it is nearly a flat sheet of conglomerate, therefore the so-called drives represent distance from the outcrop, and not depth into the mine. The drives are rarely straight for more than 60 feet, which shows that the white supervision is either careless or ignorant. Mining a flat reef should surely be done straight. It following a crooked vein it might be different. A tramway connects the mine and mill. In the mine the reef is an ordinary conglomerate with large pebbles, its general characteristic resembling the Rand Elsburg series. The lower portion is an oxidised ore lying upon sandstone; this is the richest part of the reef, and it varies from 8 inches to 3 feet in thickness. Selected specimens give pannings from 12 dwts. to 15 dwts.; the lower grades went below 2 dwts. A fair average result would be 5 dwts. per ton. A proper system of sorting the ore might increase the yield to 7 dwts. About 4 feet 6 inches of the solice of the contributed by Belgian engineers, namely, "On the Coal Mining Industry of Belgium," by M. B. de Cold Mining Industry of Belgium," by M. B. de Solice, and Steel Industries of Belgium," by M. A. Gillon, President of the Society of Engineers of Liége. A melancholy interest attaches to a paper which is down on the list, "On the Manufacture of Coke," by reason of its talented author, M. B. de Soldenhoff, having died and continued author, M. B. de Soldenhoff, having died and continued author, M. B. de Soldenhoff, having died and continued author, M. B. de Soldenhoff, having died and continued author, M. B. de Soldenhoff, having died and continued author, M. B. de Soldenhoff, having died and continued author, M. B. de Soldenhoff, having died and continued author, M. B. de Soldenhoff, having died and continued author, M. B. de Soldenhoff, having died and continued author, M. B. de Soldenhoff, having died and continued author, M. B. de Soldenhoff, having died and continued author, M. B. de Soldenhoff, having died and continued author, M. B. de Soldenhoff, having died and continued aut

DENNY DALTON GOLD FIELDS
the ore bed is being worked, and will be milled. The upper portion of the reef overlying the oxidised layer becomes hard pyritic rock, probably too poor to mill over 2 dwts. per ton. About 4000 tons are ready for the mill, and about 3000 tons in the mine is exposed and available for stoping. The reef is slightly faulted. On the north side a small downthrow has disturbed the bed, but it is of no material consequence. There is no doubt an impense quantity of ore in the property though resilve of an immense quantity of ore in the property, though mainly of low grade at present. The greatest economy in working, united to adequate milling and treatment, can alone make this mine

to adequate milling and treatment, can alone make this mine pay.

It is interesting to note the following:—The Denny Dalton Syndicate, which is the controlling power of the Denny Dalton Gold Fields, is connected with the Thwaite Denny Syndicate, of 95, Finsbury Pavement, London. The members of this latter syndicate are:—H. B. Thwaite, consulting engineer (not of the Bradford Engineers). He is the inventor of the system of roasting furnaces, now adopted at the Denny Dalton Banket Company's Works; Thomas Denny, senr., who is the holder of patents, for which he receives a royalty from the Denny Dalton Banket Company. The Denny Watson Pan is one of his patents; Thomas Denny, junn:; George Denny, manager of mine; H. Denny, secretary in Pietermaritzburg.

In gold mining these conditions are quite unique, and may involve such reciprocal happiness that an outsider cannot understand or estimate it. It is evidently too very fine and large for the interests of shareholders, who may have great expectations of their turn arriving for a golden harvest.

However, the Rand must await with keen interest the results of this newest venture of patents and processes to obtain payable returns from low grade ores.

The Iron and Steel Institute of Great Britain will this year be held in Brussels, under the presidency of Mr. E. Windsor Richards. It is just 21 years since the members met in Belgium, the autumn meeting of 1873 having been held in Liége. The Brussels meeting will begin on Monday, August 20, and will end on Friday, August 24. It is expected that the meeting will be very numerously attended, about 500 members having already intimated their intention of being present. The arrangements for the meeting are being organised by an influential local reception committee, of which M. Gillon, President of the Society of Engineers of Liége, is Chairman, in conjunction with the general secretary of the institute, Mr. Bennett H. Brough. Upon the arrival of the members in Brussels on August 20 there will be an evening reception by the Burgomaster at the Hôtel de Ville, to which ladies are invited. The morning of Tuesday will be devoted to the reading and discussion of papers in the hall of the Bourse, whilst the afternoon will be given up to a visit to the Antwerp International Exhibition. Farther papers will be read and discussed on Wednesday morning, and in the afternoon places of interest in the city will be visited. On Thursday the members will leave Brussels by special train to visit the Mariamont collieries and the Coulilet Steelworks at Charleroi, returning to Brussels in the evening. The last day of the meeting will be devoted to a visit to the works of the Cockerill Company at Seraing and the Angleer Steelworks at Liége, the members returning to Brussels in the evening. It is expected that there will be a reception of the members by the King of the Belgians; this, however, has not been to evening. It is expected that there will be a reception of the members by the King of the Belgians; this, however, has not been definitely settled. There will be no lack of papers for reading and discussion, there being no fewer than 10 set down in the list. Of Of these the first will be on "The Use of Caustic Lime in the Blast Fernace," by Sir Lowthian Bell, who was the President of the Iron and Steel Institute upon the occasion of the Liége visit. The history of crucible steel will be treated by Mr. B. A. Hadfield, whilst papers of crucible steel will be treated by Mr. R. A. Hadfield, whilst papers on other branches of metallurgy and metallurgical chemistry will be contributed by Mesre, T. W. Hogg, H. C. Jenkins, W. G. M'Millan, John Parry, and D. Selby-Bigge respectively. Two papers of leading local interest will be contributed by Belgian engineers, namely, "On the Coal Mining Industry of Belgium," by M. Briart, President of the Society of Engineers of Mainant; and "On the Iron and Steel Industries of Belgium," by M. A. Gillon, President of the Society of Engineers of Liége. A melancholy interest attaches to a paper which is down on the list, "On the Manufacture of Coke," by reason of its talented author, M. R. de Soldenhoff, having died auddenly on Thursday last while reading a paper "On the Progress of Coking," at the meeting of the South Wales Institute of Engineers at Cardiff.

REVIEWS.

A HANDBOOK FOR MINERS.

The Miners' Handbook. A handy book of reference on the subjects of mineral deposits, mining operations, ore dressing, &c., for the use of students and others incerested in mining matters. Compiled by John Milne, F.R.S., Professor of Mining in the Imperial University of Japan. Revised edition. (London: Crosby Lockwood and Son, 7, Stationers' Hall Court, Ludgate Hill.)

The purpose of this excellent little work is clearly set forth in its ample title. All, or nearly all, the processes, methods, machines, and contrivances known to the educated mining man are concisely formulated into a neatly got-up and conveniently sized volume. Revision after revision has brought the compendium as near to perfection as the united efforts of author and publisher can compass. The word "compilation" is the one used in the preface, but the work is none the less meritorious on that account. It says something for the motives of Mr. John Milne that he is willing to keep his own individuality wholly in the back ground, so that his services to the industry be carefully and conscientiously performed. It is by no means a self-evident proposition that the author's valuation of himself is the correct one. The great usefulness of the handbook is not, and probably never will be, called into question. But considerable originality can also be attributed to it—originality of design, method, and style, Judicious summarisation of the modes, forms, and principles of an industry is not one of the easiest branches of the craft of letters. There must be behind the work a clear and well-trained judgment to guide the selection from the vast mass of materials ready for use. Such a judgment is clearly reflected in the plan and execution of the "Minera' Handbook" with the result that for for use. Such a judgment is clearly reflected in the plan and execution of the "Miners' Handbook," with the result that for those engaged in the industry there could hardly be a more useful pocket companion. An abundance of just the information which would be required to assist the head directing the tion which would be required to assist the head directing the operations is there ready to hand for the economy of time and for assisting mine control. A notice of the book can hardly affect a reputation which has become so firmly established. It is upon that account a pleasure to be able to pass it over without the discovery of any blemishes likely to modify even in a minor degree the opinion already widely entertained of it. It can conscientiously be recommended as justifying to the full extent the expectations which have preceded the issue of a revised version. Not the least attractive of the features of the book is its tasteful "getup," which would make it quite an adornment to the library shelves.

PRIMITIVE WESTERN AUSTRALIA.

The Aborigines of Western Australia. By Albert F. Calvert, F.R.G.S., &c. (London: Simpkin, Marshall, Hamilton, Kent,

and Company.)
Of late, information respecting Western Australia has not been wanting. By this time we are pretty well acquainted with its state of advancement, its vast mineral and other resources, and also its many drawbacks. But very few books have been written describing its state in the dark days of barbarism, when the light of civilisation was faintly endeavouring to penetrate the gloom of intense ignorance. Therefore, all the more welcome, seeing of intense ignorance. Therefore, all the more welcome, seeing that so much interest is being taken in the colony, is this concise work of Mr. Albert Calvert. We owe a great deal to this gentleman's persistent efforts to spread abroad the knowledge, so eagerly inquired for, respecting the gold wealth of Western Australia, and the many books he has written upon this much-Austrains, and the many books he has written upon this minon-discussed topic have been wonderfully successful. Having treated of the colony from many points of view, it is well that he should take us back to the days before its abundant sources of material wealth became wide-spread, and his knowledge, gathered from travel in every quarter of the colony, he has embodied in a really interesting and readable book,

According to the Daily Inter Mountain, Montana will produce five times more gold this year than during any other year in its history since the old placer days. The copper cutput this year will also be greater than ever before. The silver output would not have here less than ever before. output would not have been less than \$25,000,000 had is not been for this Democratic administration and the cuckoo congreas. Every allver mine owner and prospector in this State will have a chance to square the account at the next election.

GOLD DIGGING IN BRITISH GUIANA.

BY THE COMMISSIONER OF MINES.

WRITING to the Demerara Daily Chronicle, Mr. E. P. Wood, the Commissioner of Mines, says:—As so many letters are being received by the Department of Mines, asking information respecting the above industry, I think it well to write a brief account that will, I hope, be of some use to in-

Climate.

Climate.

The climate is something like Northern Queensland, too hot to do hard manual work, but not too hot to prospect and to superintend the work afterwards. The heat in the shade is seldom more than 90°, though it is a very exhausting heat, and equal, in my opinion, to 120° in some other countries. There are supposed to be two wet seasons in the year, about Christmas and Midsummer, for two months each. The rainfall may be taken at about 110 inches a year.

Mode of Working and Labour.

Where the gold is being found in British Guiana is up the different rivers at a distance of from 100 miles from Georgetown to 300 miles. The richest district is the Potaro River, a branch of the Essequebo. Then there is the North West District, the Cuyuni, Mazaruni, and Demerara Rivers, in all of which gold is being obtained. The return found the statement of t The return from these districts during the last 12 months for placer washing was:—

| | 118.7 | U.W.L. | gre. |
|---------------------|---------|--------|--------|
| Essequebo | 72,287 | 7 | 10 |
| North West District | 31,837 | 17 | 11 |
| Cuyuni | 24,978 | 0 | 1 |
| Mazarupi | 9,418 | 17 | 2 |
| Demerara | 5 | 14 | 14 |
| - | | _ | - |
| Total | 138,527 | 16 | 14 |

Requirements.

All food, tools, &c., can be obtained in Georgetown, at reasonable rates. Boats can be made at a cost of about £25. A labourer's wage is 2s. 8d. per diem and his food, the cost of which is about 10d. a day.

Royalty and Licenses.

The royalty on all gold obtained in the colony is 3s. 9\frac{1}{3}d. per ounce, and which has to be paid into the Colonial Treasury in Georgetown before the gold can be sold. A prospecting license costs 2s. 1d. a month; for every grant of a mining claim 8s. 4d. a month, and for every grant of a placer claim 4s. 2d. a month. Alluvial Working.

The size of each claim is 1500 by 500 feet, and as a rule the depth of stripping is about 4 feet, and the wash about 2 feet; heavily timbered all of it. Water is fairly plentiful, but has very little fall, and in a good many claims Californian pumps or Spear pumps might be used advantageously, instead of bailing with buckets as at present.

Reef Claims

Reef claims are not being worked at present, only one company erecting machinery. The quartz is very rich, many surface samples assaying 50 ounces to the ton, and though these may have been fancy pieces, yet, even where there is no visible gold, they often give 8 to 10 ounces. So little work has been done on the reefs that it is quite out of the question to give much of an account of them. They are of all sorts and sizes, quartz very friable, and as far as I have so n not cased quite as one would wish but at till there has been so little done as yet that conceannot friable, and as far as I have seen not cased quite as one would wish, but still there has been so little done as yet that one cannot form a very correct judgment on their permanency. Everything would roint to there being an exceedingly rich reesing district, and the chief thing needed is a class of mon that understand mining. The labourers would have to be educated up to under-ground work, but there is no reason why they should not make good miners eventually. Timber for mining purposes grows in plenty on every claim, and each claim-holder is entitled to cut what he requires free. If more is required a woodcutting grant can be obtained at a and each claim-holder is entitled to cut what he requires free. If more is required a woodcutting grant can be obtained at a small rental. At present there are a very few white men working, nearly all the parties are composed of blacks, financed by store-keepers and others in town. This mode of working must very shortly collapse, as the gold in many cases does not find its way to the real owners, and it is only a spirit of gambling that keeps the thing up. No doubt eventually the labourers will form themselves into parties and work for themselves, but they are such an improvident lot, that they scarcely ever save money enough to fit themselves out with clothing before they leave for the mines. Another thing, they will not trust each other, but this might be got over by dividing the gold each night.

Answers to Correspondents.

Answers to Correspondents.

Answers to Correspondents.

The amount of gold produced last year was 138,527 ounces, and the year before 134,124 ounces. The labourers are African blacks, the descendants of the slaves of former years. The only geological survey is a book called "Reports on the Geology of British Guiana," by Charles B. Brown, F.G.S., and J. G. Sawkins, printed and sold by Longman, Green, and Co., London. The best time of the year to arrive in British Guiana is about October, but with the exception of July, August, and September, there is very little difference in the climate all the year round. Flooded rivers do not stop the boats going up, except on very rare occasions.

Diamonds

Several diamonds have been found by chance in panning off the gold at the end of a day's work, and, if found like this, any old diamond miner would say they must be in pretty large quantities. I have no doubt but that if a small pulsating ma-chine were tried, that diamond mining would pay. In sluicing there is but little chance of a diamond stopping in the box, and atill less chance of its being discovered in panning off. Many of the labourers employed never in their lives have seen a diamond in its natural state before, but are only attracted by the peculiarity of its shape.

The mineral survey of the belt of metalliferous rocks of the Transition Series in Chota Nagpur will be taken up by the Survey of India during the next field senson, says the Indian Engineer. As the result of his recent visit, Dr. King is of opinion that the relations of the Transitions themselves, and the association of the metalliferous views should be worked out in more detail as a guidance to further endeavours in the way of gold

SPECIAL CORRESPONDENCE:

OUR PARIS LETTER.

South African Mining.- The Champ d'Or.-Mining in French Guiana.—New Mining Enterprise in Spain.

—The Nickel Industry in New Caledonia.—

Mining in Madagascar.

OME holders in South African gold mining scrip are availing themselves of the rising market to sell at a profitable figure, and this has caused a perceptible reaction in a few figure, and this has caused a perceptible reaction in a few shares which are fluctuating in an uncertain manner. The readiness with which holders of Langlastes are disposing of their scrip is an important factor towards bringing about a weakness in quotations. This has given a quieter tone to the share market generally, and buyers are not so ready to secure gold mining scrip. At the same time exception must be taken to such properties as the Robinson Mine, which enjoys the greatest confidence amongst French investors. In face of this confidence the recent attempt to "bear" Robinsons fell entirely flat, and any misgiving that may have arisen through the rumours set about concerning them was allayed by an efficial notice issued from London. It is evident, however, that the more quiet feeling which now prevails is but however, that the more quiet feeling which now prevails is but a temporary feature of the share market, and will give way very shortly before the favourable estimates that continue to be published concerning South African mining.

published concerning South African mining.

The improved position of the Champ d'Or Company is likely to do much towards strengthening confidence in the future of gold mining. After passing through so many trials it is very satisfactory to find that the concern has at length reached a stage which seems to be the turning point to a prosperous tuture. The whole of the debt of something like £36,000 has now been wiped off, and the profits during a single month have reached the remunerative figure of £9000. Under these circumstances, it is not surprising that the shares of the company should now be in greater demand than at any time since the should now be in greater demand than at any time since the first few months of its existence. It must be remembered, how-ever, that though a great deal of money was spent last year in the laying down of new stamp batteries, the other machinery is yet far from being in an efficient state, and a certain portion of the profits will have to be set apart for the purpose of renewing the hauling and other gear, if the company is to increase its output of gold. As the policy of the directors seems to be in favour of adopting the economical means of treatment which

output of gold. As the policy of the directors seems to be in favour of adopting the economical means of treatment which have so largely increased the yield in other properties, the outlook is distinctly encouraging.

Since gold mining is at present attracting particular attention it is only natural that investors should show a predilection for the shares of the Placer Enfin, of which details were recently given in these columns. That this concern is in a very satisfactory position is shown by the fact that one of the largest dealers has, during the past few days, bought up all the shares that were on the market. The company lately acquired another mine, the Pas-trop-tôt, and as they had to take over some rather heavy liabilities it has not been possible yet to declare large dividends, notwithstanding that the output of gold has very largely increased. Now that these liabilities have all been discharged the directors hope to have shortly a considerable sum for distribution among the shareholders. At the present moment the Placer Enfin finds itself in a difficulty, owing to the loss of hands, who have left French Guiana for the new mines that were recently found upon the left bank of the Oyapock, where the richness of the deposits are left bank of the Oyapock, where the richness of the deposits are a powerful attraction for the mines in neighbouring countries The Société du Placer Enfin is now making arrangements for the drafting into the mines of a fresh lot of hands.

Several new facts are coming to light to show the activity with which mining enterprise is being carried on in Spain. A new company is, for instance, being formed in Paris with English and French capital for the development of auriferous deposits in the Peninsula, but particulars of this undertaking cannot be given for another month, when the content is the second of the content is the second of the content in the second of the content in the second of the content is the second of the content in the second of the second deposits in the Pennaula, but particulars of this undertaking cannot be given for another month, when the company will he definitely formed. In the meantine, active operations are being pursued by the Escombrera-Bleyberg Company, who are working several mines of zinc, lead, silver, and coal. At Carthagena, Mazarron, and Linares prospecting is being undertaken upon a large scale, but so far no definite light has been thrown upon the importance of the mineral deposits. At Villaneuva del Duque, in the province of Cordone, three different deposits of lead have been cut through, and the mineral, though of excellent quality, is very porn in alver.

Cordone, three different deposits of lead have been cut through, and the mineral, though of excellent quality, is very poor in 8 lvr. Until recently the Nickel Company of New Caledonia has never presented a detailed statement of its affairs, and the shareholders have long based their sanguine hopes upon the general and somewhat vague resumé presented by the directors. Now that the state of the company's affairs is known with some degree of accuracy, shareholders are displaying a pronounced feeling of distrust in the future of the concern. The original idea of the Nickel Company was to monopolise the nickel production of New Caledonia, under the impression that the deidea of the Nickel Company was to monopolise the nickel production of New Caledonia, under the impression that the deposits elsewhere were not sufficiently rich to compete with the New Caledonian nickel, which has the advantage of being very pure. But if the nickel is purer than that found elsewhere, its cost of production is much dearer owing to the high cost of labour, and to the fact that coke has to be imported from England at £4 per ton. In Canada, on the other hand, the cost of labour and fuel is cheaper, and a new process of treatment has been discovered, whereby the cost is still further reduced 3 fr. per kilo. While, therefore, the value of the metal tends to become lower there can be little hope for the Nickel Company of New Caledonia. The only chance of prosperous work in the future lies in a much heavier consumption of the metal than is now taking place, and in the adoption of some more economical now taking place, and in the adoption of some more economical methods of treatment, to which subject the company is at the present moment giving special attention.

Mining in Madagascar is in a condition of stagnation owing to the unsettled state of affairs in that country. Possessed of so many mineral resources that are capable of profitable development, Madagascar ought to attract a great deal of capital in the

PROMISE OF MINERAL IN CENTRAL AUSTRALIA.

ADDRESS BY DR. C. CHEWINGS, F.R.G.S., F.G.S.

ADDRESS BY DR. C. CHEWINGS, F.R.G.S., F.G.S.

A MEETING was held in Adelaide, on June 8th, under the auspices of the South Australian branch of the Geographical Society, a full report of which appears in the Adelaide Observer. The subject prominently brought forward was "Central Australia." The Terasurer (Hon. F. W. Holder) presided over a very good attendance.

The Terasurer said he was very glad to make the acquaintance of the Royal Geographical Society. Even if he had wanted to he could not have refused to preside because amongst his other duties there devolved upon him the control of the vast and undeveloped area known as the Northern Territory. He wished it were less undeveloped but not less vast. (Hear, hear.) If it was developed to an extent at all commensurate to its greatness in area it would be a great place indeed. It had been said by some that that which was now the tail would some day wag the dog. (Laughter.) He hoped that day would speedily come. (Hear, hear.) There were, however, few signs of it. Perhaps Dr. Chewings would tell them how the arrival of the new era might be hastened. About three years since he had an opportunity of seeing the MacDonnell Ranges himself, and with his unpractised eye he gleaned that there were considerable possibilities before that place. It seemed to him that the mineral localities before that place. It seemed to him that pare in the service of the seemed to him that the mineral localities before that place. It seemed to him that pare the possibilities were very great indeed. There was, perhaps, no unpractised eye he gleaned that there were considerable possibilities before that place. It seemed to him that the mineral possibilities were very great indeed. There was, perhaps, no part of the territory which had greater hope of early development than the MacDonnell Ranges. Dr. Chewings was a gentleman who would speak from long practical experience of the country, and he did not, like some scientists, speak merely from a theoretical knowledge of his subject. (Hear, hear.) He was glad Mr. Horn was able to speak. (Cheers.) The day was past when they had need of a Columbus to discover a new world, but if there were no new lands to discover there were new characteristics of lands they knew which were well worthy of investigation, and as so little was known about them in this great continent, they might congratulate themse'ves that they had amongst them a gentleman of the patriotic purpose and public spirit which Mr. Horn had shown. (Cheers.) He expected very great possibility from the expedition Mr. Horn had fitted out. Sir Thomas Elder had already done much to open up this continent by the expedition of the continent, and now they had a second expedition fitted out with the best possible knowledge and with every wears provent of continent, and now they had a second expedition fitted out with the best possible knowledge and with every prospect of success. They might hope when it returned that it would afford information connected with the mineral and other possibilities of the centre of the continent, which would be of the

bilities of the centre of the continent, which would be of the utmost value. He hoped the scientists who accompanied the expedition would do all that Mr. Hern expected, and if they did they would do very well indeed. (Cheers.)

Dr. C. Chewings, F.R.G.S., F.G.S., &c., then read a paper entitled "The Physical Features of Central Australia, their Promiss of Mineral Wealth." During the course of his remarks he first explained the sedimentary rocks, and how their relative ages were determined by fossils. The total thickness of these rocks was from 20 to 30 miles, but they were never found all together in one place. By contraction of the earth's crust these fossil-bearing rocks were compressed and folded and elevated into mountain chains. Where fossils could be found the same lavers were recognisable even though separated or covered by into mountain chains. Where fossils could be found the same layers were recognisable even though separated or covered by other rocks for many miles. Through earth movements the crust of the earth was rent and shattered, and perhaps by the sinking of large areas and other causes the highly-heated rocks deep down in the earth found their way into the layers of rocks on and near the surface. Rocks that cooled on the surface have a totally different structure to those that cooled deeper down, and both were different to those that cooled in narrow cracks. Those that cooled deep down in the earth's crust and under the pressure of the overlying rocks only became visible through the removal of what lay above at the time of cooling. The examination of these rocks was being vigorously pursued by geologists, because the connection of certain minerals and metals with certain kinds of rocks had been traced largely by by geologists, because the connection of certain minerals and metals with certain kinds of rocks had been traced largely by the aid of the microscope. The principal mountain chains in South and Central Australia were mentioned. The Lake Mulligan diprotodon discoveries were characterised as the most important yet made in Australia. They had attracted the attention of scientists all over the world; he had even heard them referred to at some length in a lecture in Heidelberg, in Germany. The locality should be systematically explored, and the bones hardened on the spot. The best bones and skeletons should be retained in the colony, and the balance used for nurroses of hardened on the spot. The best bones and skeletons should be retained in the colony, and the balance used for purposes of exchange. They had a selling or exchange value just as sovereigns had, and the Government should prevent the indiscriminate removal of bones, because the value of complete skeletons would be depreciated thereby. (Cheers.) The process of mountain building was a gradual thing. Times of disturbance was followed by periods of rest and quiet, during which the more elevated portions of a mountain chain wore down, and the debris formed thick layers of sandstones, limestones, and shales on the flanks of mountain chains. When fresh disturbances again set in these newer rocks were thrown into great folds together with the older rocks. The breaks, faults, foldings, crushings, and shoving about the rocks had undergone in many mountain chains being almost incredible. Fossils became crushings, and shoving about the rocks had undergone in many mountain chains being almost incredible. Fossils became aqueezed and contorted, sometimes drawn out to inordinate lengths. Minerals in the eruptive rocks also lost their normal shape and their optical properties, and were even transformed and became new minerals. The eruptive rocks lost their original structure, and the harder minerals took on the shape of a lens. The present MacDonnell Ranges were but the outer edge and the southern part of an ancient mountain chain that had long since become degraded. The area now occupied by rolling sandhills, and which extended from the north side of the MacDonnells northwards to Stuart's Bluff Range, and per-haps even further north, was at one time the central part of a haps even further north, was at one time the central part of a great mountain chain that extended far to the east and west. These rocks warranted a thorough, careful, and scientific examination, and they should be mapped. The sedimentary rocks on the south side of the MacDonnell were referred to in detail. The tableland formation of the Lake Eyre basin had some remarkable features. The sands had been cemented in bygone ages by silica; weathering had cracked this silicified surface into variously-sized rocks and stones. These stones covered thousands of square miles of country, and were objectionable to man and beast to travel over. Sturt's Stony Desert was an instance of this rough, stony country. By weathering this formation assumed castle-like hills and other romantic and fantastic shapes. ment, Madagascar ought to attract a great deal of capital in the carrying on of a mining industry, and enterprise would be further facilitated by the excellent terms that are offered by the Government to capitalists who would engage in this work. Unfortunately, the constant uncertainty which prevails as to any future action that may be taken by France paralyses onterprise in that country. The French themselves express dissatisfaction at the success of Mr. Kingdom and other English capitalists in securing large concessions, and everthing is being done to force the Government into taking action which may establish French supremacy in Madagascar. The oroded material that once existed between these hills had been probably transported by the wind to the sandy patches talists to strike out a new line of enterprise which cannot fail to have profitable results. English influence sincreasing so rapidly in Madagascar that this settlement cannot be much longer delayed. were the most remarkable features. They ran in long ridges, 1000 feet high, through the country for scores and scores of miles. To show the worth of the sedimentary rocks, he stated that in and around the oldest ranges in any country where sedimentary rocks, vastly differing in age, occurred together, as —for instance, on the flanks of the MacDonnell—there was much interest in searching out their history, and when they might supply material to show that the same, similar, or even a totally different fauna inhabited the Southern Hemisphere at about a time when the Northern Hemisphere was possessed by a funa or flora of distinctive character already well studied, they would see how important to science the close investigation of series of rocks such as those referred to must be. They might supply breaks in the faunal history of the earth that have long been known to be missing. The Horn Scientific Expedition, now on its way to the MacDonnell Ranges, was one of if not the best qualified ever sent into the interior—(cheers)—and we might await on their return the evolution or corroboration of geological and other opinions of considerable moment. Their natural history collections would be of great value, but it would take them the greater part of their allotted three months to travel there and back on camels. They would settle such points as he had referred to, but they could hardly commence to explore such a large tract of country in the time at their disposal, as those familiar with the circumstances would admit. Not only on the north side of the MacDonnell did favourable conditions exist for minerals, but in other localities—e.e., the eastern end of the as those familiar with the circumstances would admit. Not only on the north side of the MacDonnell did favourable conditions exist for minerals, but in other localities—e.g., the eastern end of the Musgrave and in several places in the Flanders, Gawler, and Mount Lofty Ranges. It was only where great erosion had followed the eruptions that hopeful search might be made. The indication of such localities was a work that the State should have carried out. (Cheers.) As a trigonometrical survey was necessary to indicate the boundaries of pastoral leases, &c., so was it at the present juncture especially important that such areas worthy of being prospected should be mapped and geologically described. The system South Australia had adopted in the past was a bad one. It had been the custom to send the Government Geologist here, there, and everywhere to make flying trips to different parts. Had his time and energies been confined to the careful mapping and describing of limited areas they should have had much more to show for the money, and the results would now be of good practical service. (Hear, hear.) Such work to be of value could not be done by riding through the country in direct lines; to do so was largely a waste of time and money. What was required was to finish a piece at a time, be it large or small; such pieces could be pieced together, and in time a geological map of the whole colony would be completed, always doing the most important parts first. It was geological maps they wanted, carefully and scientifically prepared, and on such a scale that it would be possible to place one in a prospector's hand and say, "Go and search in such and such a spot." The interior promised mineral wealth—it was a most hopeful field, but it was necessary to go the right way to find it. on the north side of the MacDonnell did favourable conditions spot." The interior promised mineral wealth—it was a most hopeful field, but it was necessary to go the right way to find it.

DARLINGTON STEEL AND IRON COMPANY (LIMITED). — The annual meeting of this company was held at Darlington on Monday, Mr. Hogh Bell, Chairman, presiding.—The Chairman regretted the annual meeting of this company was held at Darlington on Monday, Mr. Hugh Bell, Chairman, presiding.—The Chairman regretted the loss of £3571 on last year's working owing to the depression in the steel trade, which had deepened during the last three months since their accounts had been made up. The directors had, therefore, reluctantly come to the conclusion to close the works after a fortnight or three weeks for an indefinite period. After paying all their creditors they would have a considerable surplus in the bank, though they were still liable for £14,000 on the mortgage. In reviewing their operations for 12 years since he had been connected with the company, the Chairman said they had manufactured three-quarters of a million of tons of steel, for which they had received about four millions sterling. They had, deducting for losses, made during that time £74,164 profit of which £43,000 had been distributed to the shareholders. They had paid in wages over the time mentioned £700,000. For every 2000 of steel made in Darlington 70 per cent. of the cost had been paid directly or indirectly to working men in collieries, mines in Spain, to sailors; in the labour for manufacture of pig-iron and steel they had paid £2,800,000 of the four millions. In other words, for every £1 turned over 15s. had been paid to the men themselves. The shareholders had received the munificent sum of 3d. in the £1 in profits. Of the 3d, one penny had gone in improving the plant of the works, or in reducing the mortgage. In these days, when they heard so much about the rights of working men, it was not uninteresting to observe that if all the profits they had made had gone to the men ta Darlington they would have got 10 per cent. more wages, but if the profit had been distributed over all the classes of workmen he had just mentioned, including those who provided the material for steel making, they would have received 2½ per cent. more wages. The demand of the capitalist in this matter had not, therefore, been extravagant. The adoption of

No work is yet being done underground at the Junction North Mine. After the cessation of pumping the water rose in the shaft until it stood at about the 420 feet level. It will not, however, take long when the pumps are started to free the

TIN TICKETING.

TICKETING for tin ores was held at Redruth, on Teesday,

| ALUES OF | | | | | | - | | | | |
|----------------------|-------|----|--------|------|------|---|--------|-------|-------|-----|
| | ons (| | | | ton. | | | | alue. | |
| Carn Brea No. 1 | 14 | | ***** | | | 0 | ***** | £486 | | 0 |
| do No. 1a | 14 | | | | 17 | 6 | ***** | 488 | 5 | .0 |
| do No. 1b | 14 | 0 | ***** | 34 | 17 | 6 | ***** | 488 | 5 | 0 |
| do No. 2 | 2 | 0 | ***** | 26 | 7 | 6 | | 52 | 15 | 0 |
| Tincroft | 16 | 0 | ****** | 36 | - 5 | 0 | ***** | 580 | 0 | 0 |
| do | 16 | 0 | ***** | 36 | 5 | 0 | ***** | 580 | 0 | 0 |
| do | 3 | 0 | ***** | 19 | 12 | 6 | ***** | 58 | 17 | - 6 |
| South Frances No. 1 | 16 | 0 | ***** | 38 | 12 | 6 | | 618 | 0 | 0 |
| do No. 1a | 15 | 0 | ***** | 38 | 12 | 6 | ***** | 579 | 7 | 6 |
| Wheal Grenville a | 15 | 0 | ***** | 40 | 7 | 6 | ***** | 605 | 12 | 6 |
| do b | 15 | 0 | ***** | 40 | 0 | 0 | ***** | 600 | 0 | 0 |
| Dolooath No. 1 | 13 | 0 | ***** | 39 | 5 | 0 | | 510 | 5 | 0 |
| do No. 1a | 12 | 0 | | 39 | 7 | 6 | ***** | 472 | 10 | 0 |
| Phonoix United No. 1 | 17 | 0 | ***** | 38 | 0 | 0 | | 646 | 0 | 0 |
| do No. 2 | 1 | 10 | ****** | 26 | 10 | 0 | ***** | 39 | - 5 | 0 |
| East Pool No. 1 | 16 | 10 | ***** | 35 | 2 | 6 | | 579 | 11 | 3 |
| do No. 2 | 1 | 10 | ***** | 18 | 0 | 0 | ***** | 27 | 0 | 0 |
| Wheal Basset No. 1 | 13 | 0 | ***** | 40 | 15 | 0 | ***** | 529 | 15 | 0 |
| do No. 2 | - 3 | 0 | ****** | 27 | 7 | 6 | ***** | 82 | 2 | 6 |
| Killifreth | 15 | 0 | ***** | 38 | 7 | 6 | ***** | 575 | 12 | 6 |
| Wheal Agar | 12 | 0 | ***** | 35 | 7 | 6 | | 424 | 10 | 0 |
| | 12 | 0 | ****** | 41 | 15 | 0 | ****** | 501 | 0 | 0 |
| | 8 | | | - 41 | 10 | 0 | ***** | - | 0 | 0 |
| | 264 | 10 | | | | | 4 | 9,857 | 3 | 9 |

AVERAGE PRICES PER TON.

3 | June 19 8 | July 3 0 | July 17 4 | July 31

.... £40 12 42 0 41 0

LEGAL INTELLIGENCE.

GOLD AND ITS RECOVERY.*

CASSEL v. CYANIDE.-HIS LORDSHIP RESERVES JUDGMENT.

HIS action was continued before Mr. Justice Romer on Friday and Saturday. Mr. JAMES MACTEAR, F.R.S.E., F.C.S., F.I.C., further cross-Ar. James Macreat, F.R.S.E., F.O.S., F.I.C., further cross-examined by Mr. Moulton, was asked to point out to the Court, out of all the literature of chemistry, what he considered to be the best enunciation of the property that cyanide would in the cold dissolve metallic gold at a practical rate. Witness referred to the "Circle of the Sciences," page 237, to the effect that a concentrated solution of potassium at ordinary temperature, and shaken frequently, would precipitate gold and silver. Wit-ness also gave another reference in "Miller's Chemistry." These passages fairly represented the state of knowledge on the subject.

In re-examination, Wirness said that the extraction of gold from ore in England could not be called an industry, on account of the absence of mines. It was necessary, however, for some

In answer to Mr. Bouspield, Witness said that he did not say that more information was disclosed in "Miller's Chemistry." than in the particulars of objection, but that it was more clearly

Mr. Harland, interposed for cross-examination by Mr. Moulton, was taken to his experiments with the defendants apparatus. The apparatus was about the same size as the model in Court. What he operated upon was ore, not tailings. The object of the experiment was to see whether electricity had any effect. Witness repeated the account he had given on the previous day of the way in which his experiments were made. The experiments with electricity were made with the Pielsticker process, and the experiments without electricity were made in a separate vessel. In the former experiments he had circulation, and in the other he had no circulation, but stirred up the ore.

Mr. Justice Romer asked why the witnesses did not take the test in the ordinary way: that was to say, take Pielsticker's muchine, work it for 24 hours with a current of electricity and then 24 hours without the current, and then see how much more gold was deposited in the one case than in the other.

Mr. Moulton: Quite so.

Mr. MOULTON: Quite so.
Mr. Justice Romer said he did not see why the experiment should not be tried if both parties were agreed that it was important. He did not say that it was essential to decide this case, but, still, it might be.

Mr. NEVILLE submitted that this was a subsidiary point in the

Mr. Justice Romer: I cannot see why we should not have the experiment tried simply on the Pielsticker machine, working it with the current and then without, and see which would get the most gold. That would be an absolutely certain test to find whether electricity does produce more gold or not. You ought to try and get several specimens of ore, taking care that you have pretizes of the save care for each experiment. have portions of the same ore for each experiment.

Mr. Neville said that the making of these experiments would

Mr. Neville said that the making of these experiments would delay the decision of the case.

Mr. Justice Romee: I do not suppose you will get your judgment on this side of the vacation; you might, or you might not. If either side is going to rely upon these experiments, I must say the present evidence is most unsatisfactory to me.

Mr. MOULTON said he would like to have the experiments tried by some independent expert.

Mr. Justice Romee: That would put the thing beyond the shadow of a doubt.

nadow of a doubt.

Mr. Neville said it would have to be done on a practical, and

of an experimental, scale.
Ultimately, Mr. Justice Romen thought that the case should econcluded, and then that the experiments they had been scussing should be taken.

discussing should be taken.

All parties concurred in finishing the case so far as concerned all parts other than this.

Professor Attfield, F.R.S., said that he had read a paper on the solution of gold by cyanide of potassium before the Chemical Society 30 years ago. Rae's process would dissolve gold. He thought that in that process the cyanide of potassium was the main agent, and he inferred from the language used that the electric current was only to materially facilitate the action.

Mr. Justice Romer: Do you think that in 1887 any invention was required to discover that a solution of cyanide of potassium could be practically applied to dissolve gold and silver in commercial ore?—I do not.

mercial ore?-I do not

mercial ore?—I do not.

Cross-examined by Sir R. Webster, Witness was asked to point to any book or writing in 1887 which would lead to the belief that the gold in gold ore was soluble in cyanide of potassium and his reply was that Rae and Simpson distinctly said that one might so dissolve gold in gold ore.

Can you point me to a suggestion that for commercial purposes a solution of gold and cyanide of potassium could be made by the simple action of cyanide of potassium upon the gold, prior to 1887?—Yes; the suggestion is in Makin's manual.

WITNESS then went on to say that he did not find any indication in Rae that a person was to abandon his electricity and get

tion in Rae that a person was to abandon his electricity and get his gold by means of a solution of cyanide of potassium only. Mr. NEVILLE said that that was the defendants' case. Having consulted with Sir Edward Clarke he desired to state that they were sufficiently satisfied with their case upon broad lines, and they

did not desire to have any further experiments on the question of electricity.

Mr. Justice Romer: You will try the case on the same locting as if you had not used electricity?

Mr. Neville said that would be the probable result.

Mr. Bewick, one of the defendants, then made a statement from the witness box, in the course of which he said that he was a merchant and the Chairman of the defendant syndicate. He had had considerable mining experience, and he quite agreed with Mr. Janin, of New York, when he said that cyanide of potassium had been for a great many years past known to every intelligent man as a solvent of gold ores. He denied the selective action which had been referred to, and said that the statement that about 500,000 ounces of gold had been recovered by plaintiffs' process was most misleading, because in the plaintiffs' specification for the Transvaal there was a zinc filter, which was the only novelty in the plaintiffs' process. Men were not paying royalties in the Transvaal now, but refusing to pay them. As long as they could find any other method than zinc for recovery it was not necessary to do so.

Mr. NEVILLE then summed up the case for the defendants. They might, he said, have gone on almost until Doomsday about erchant and the Chairman of the defendant syndicate.

They might, he said, have gone on almost until Doomsday about electricity, but there was one broad point. The plaintiffs claimed the use of any solution which contained cyanogen or cyanide,

38 13 9
38 4 11

* In our report of this case last week we stated that Mr. James Mactear was
41 12 8 of Edinburgh, instead of Victoria Mansions, Westminster, S.W.

or any cyanogen-yielding substance. If that were so, that obviously applied to Simpson and to Rae, who both used a cyanogen-containing solution for the purpose of extracting gold from ore. There was an end of the case.

Sir R. Webster said that if it was suggested that the plaintiffs' patent was wide enough to include Rae and Simpson, he should apply to disclaim.

tiffs patent was wide enough to include Rae and Simpson, he should apply to disclaim.

Mr. Neville thought that application would be late in the day, and proceeded to attempt to dispose of the argument that the plaintiffs' was such a meritorious invention that it ought to be favourably viewed by the Court. The cross-examination indicated the defendants' case with regard to that. They said that the process, as far as it had been successful, depended not upon the easily-ascertained method of dissolving the gold from the ore, but upon the finding of a workable and suitable method of getting the gold out of solution when you had once got it there. The learned counsel then referred to the evidence of the plaintiffs as showing that not 1 ton of gold ore was treated until the plaintiffs had arrived at a suitable method of getting the gold out of solution. With regard to the second claim, the learned counsel pointed out that that was a claim practically for every useful form of cyanide of potassium. He then dealt with the question whether the plaintiffs could have a patent for cyanide of potassium alone, and submitted, on the authority of a number of cases, that they could not. If the plaintiffs' patent was not for the use of cyanide of potassium alone, then Simpson's patent was fatal to it, because there was only a slight admixture of another chemical. All the evidence went to show that Simpson's patent would do the work of the plaintiff's patent, and it was an absolute absurdity to say that all the world might use evanide of potassium if they put in the plaintiff's patent, and it was an absolute absurdity to say that all the world might use cyanide of potassium if they put in that all the world might use cyanide of potassium if they put in half an ounce of carbonate of ammonium, but the plaintiffs alone had the use of cyanide of potassium. For anybody to read Simpson's specification and say that it did not disclose the use of cyanide of potassium as a solvent of gold seemed to him to be a strange proposition. Much the same remarks were made with regard to Rae, and the learned counsel submitted that neither of these patentees claimed the use of cyanide of potassium alone, because its solvent properties were even at that time Mr. Goodeve followed, and Mr. Bewick added a few words

Sir R. Webster, replying on the whole case for the plaintiffs, said he proposed to examine the existing state of knowledge said he proposed to examine the existing state of knowledge from the points of view of what the general knowledge showed and what specific exposition showed. His respectful submission was that, so far from these expositions, or any of them, having told persons that they could extract gold from ore, or gold from anything, by cyanide of potassium, they would have been led away from it. One broad observation that might be made was that nobody could predict, simply because a chemical was a solvent, that it would be useful. The most well-known solvent of gold was aqua regia, and it was admitted by everybody that that was absolutely useless for the purpose of dissolving gold out of cres. With regard to the knowledge which the defendance of the country of the c dants' witnesses said was disclosed in chemical literature, the learned counsel said that not a living being of all these chemists had ever given the Court a practical effect of all this. It was common ground that there was no prior user in this case.

ommon ground that there was no prior user in this case.

Mr. Justice Romer: In England.

Sir R. Webster said he should show that there was evidence of no user of Simpson or Rae anywhere in a sense that would invalidate the patent. The learned counsel then drew attention to passages in the evidence with a view of supporting his proposition, and went on to say that he did not know of any case where it could less be said that a patentee was availing himself of previously known scientific facts to helster up a claim which where it could less be said that a particle was availing himself of previously-known scientific facts to bolster up a claim which, when investigated, could not be supported. The knowledge about cyanide of potassium referred to by the defendants did not lead Professor Roberts-Austen or Mr. MacArthur to the knowledge that cyanide of potassium was a solvent of gold in its ore. If this was merely a question of solvency, why had not aqua regia been taken, that being known to be infinitely more a solvent than cyanide of potassium? It had not been challenged that no chemist could diagnose, from the mere fact that cyanide that no chemist could diagnose, from the mere fact that cyanide of potassium would have a solvent effect upon gold in a given condition, that it would act on the gold in ores. Having referred to the evidence on this point, learned counsel came to what he termed the two most important points, namely, the alleged anticipations of Rae and Simpson. The defendants, he said, came into Court to win this case upon Rae's specification; they came to prove that they were electrically depositing the gold ont of the ordinary solution, and not using the chemical action. He did not hesitate to say that his lordship had seldom heard so complete an abandomment of the case the defendants came into Court to prove. How did the matter stand? The plaintiffs described the Pielsticker process, and called evidence to prove that when the electric current was passing, as the defendants use it, it had no effect on the dissolving action of the solvent as distinguished from the depositing action. dants use it, it had no effect on the dissolving action of the solvent as distinguished from the depositing action, and the Lordship then said that the state of the evidence was so satisfactory that further experiments ought to be tried. The plaintiffs had called Lord Kelvin, who might have been right or wrong; but he prescribed his own apparatus, and the experiment carried out by him did prove that there was less gold when the current was passing than when it was not. The defendants took the apparatus away, and they gave evidence that Lord Kelvin's experiment was untrustworthy, because the solution could pass through the second carbon division. Thereupon, the plaintiffs in open Court offered that these experiments should be renewed. What happened? The defendants abandoned the electricity distinction: offered that these experiments should be renewed. What hap-pened? The defendants abandoned the electricity distinction; they were obliged to admit that they could not rely upon any distinction due to the fact that they had superadded electricity to what Mr. MacArthur had patented. With regard to Rae, he asked the Court to remember that the evidence was that Rae had asked the Court to remember that the evidence was that the had abandoned the cyanide of potassium, and worked by electricity alone. What was necessary in order that Rase could be used as an anticipation of the plaintiffs' patent? He said, without hestation, that sufficient directions must be found to tell people to abandon the electricity, and to rely upon the dissolving action of the cyanide of potassium.

Mr. Justice ROMER said that what would be said against the

plaintiffs was this: That the general knowledge was that cyanide of potassium would dissolve gold under certain circumstances; and though there possibly might be a doubt whether you could dissolve gold in crushed ore, here was Rae saying, "You certainly

dissolve gold in crushed ore, here was Rae saying, "You certainly can, and the use of the electric current will facilitate it."

Sir R. Webster: I say the electricity is to make the solution.

Mr. Justice Romer did not take that view, having regard to the language of the specification, and said that the defendants said that if any person had any doubt whether cyanide of potassium would dissolve the gold in the crushed ore, after reading Rae, he could not have had a doubt about it.

Sir R. Webster said that was the strongest thing in his favour. Rae had told people that they could have a perfect solution by the aid of electricity; he had never told people that they could get a perfect solution by the action of the chemical. What Rae said was that if you desired to get the maximum solution of gold you must have an electric current. He (Sir Richard Webster) denied that the defendants were entitled to eke that out by saying that it was previously known that cyanide of potassium saying that it was previously known that cyanide of potassium had a solvent action on gold in ore. Rae told people that cyanide of potassium had a certain solvent action on gold in

ore; but that, if it was desired to make it a practical solution, you must have electricity to aid it. He submitted that Rae could not be read as if the electricity were not there. He knew of no case in which in order to invalidate a patent the defendant had been allowed to rely upon that which was contrary to the directions of the alleged anticipating patent.

Mr. Justice ROMER said that this was not put against the labeled for anticipating directly, but on the question of anticipating directly but on the question of anticipating directly.

Mr. Justice Romee said that this was not put against the plaintiff as anticipation directly, but on the question of anticipation generally. It was said by the defendants that if cyanide of potassium was found to dissolve gold, presumably it would dissolve gold in ore; but if there were any doubt that it could be applied usefully, Rae said that it could be usefully applied to ore, though it was better to have electricity.

Sir R. Webster denied that Rae showed that, and submitted that this kind of anticipation was not sufficient to invalidate the patent. With regard to the suggestion that persons had paid £117,000 for a step which was merely the omission of a chemical from Simpson's patent, he asked the attention of the Court to the greatness of the step taken by the plaintiffs' invention. It was not until the reply that any suggestion was made that it was not a great step. In conclusion, the learned counsel said that this case was to be decided by the evidence, and he submitted that this most useful invention, which had been pirated that this case was to be decided by the evidence, and he sub-mitted that this most useful invention, which had been pirated by the defendants because it was a useful invention, was the re-sult of experiment, research, and the bringing to bear of great skill and knowledge; that it had not been generally or specifi-cally anticipated; and that the defendants ought to be restrained by injunction from taking that which had been proved to be a new and useful invention. and useful invention.

Mr. Justice Romer: I will consider my judgment.

MEETINGS OF MINING COMPANIES.

CENTRAL MONTROSE MINING COMPANY, LIMITED

An expert's opinion of the property.-The proposed cyanide plant.

HE annual general meeting of the Central Montrose Mining

Company (Limited) took place on Monday, at Winchester House, the chair being occupied by Mr. J. S. PRINCE. The SECRETARY (Mr. William Curtis Thomson, C.A.) read the

The Chairman (Mr. William Cuttis Hollason, C.A.) read the notice convening the meeting.

The Chairman said:—Gentlemen, before proceeding with the business of the meeting I must take the opportunity of expressing my regret that I should have been called upon to preside on the present occasion through the recent death of our late Chairman (Sir present occasion through the recent death of our late Chairman (Sir Richard Meade), whose great zeal and interest in the affairs of our company I wish now to place on record. And, gentlemen, however incompetent I may be to discharge the duties so ably performed by him, I will endeavour to the best of my ability to lay before you a clear and complete statement of the position and prospects of the company. Before formally moving the adoption of the report and accounts I should like to make a few observations upon the policy which has enided your directors during the period since our last which has guided your directors during the period since our last annual meeting. The accounts and balance sheet do not, I think, require any comment from me, more especially as I propose later on to deal with the question of our general expenditure. Our last on to ceal with the question of our general expenditure. Our list annual meeting was, as you know, postponed until a late period in the year, with a view of enabling your directors, after taking the opinion and advice of an independent expert, to consider the best means of dealing with the company's property. The result of that independent survey has been, I think, sufficiently set out in the report. It amply confirms the opinions and advice of our manager (Mr. Hawkins), and effectually disposes of any possible suggestion that the development carried on by him has been wanting in skill that the development carried on by him has been wanting in skill and judgment. It was impossible to foresee that in the 380 feet level the reef, whilst continuous, should pass through hard and difficult country to that depth without affording considerable patches level the reef, whilst continuous, should pass through hard and difficult country to that depth without affording considerable patches of high grade ore. Mr. Leyson reports that the ore in the 380 feet level is highly charged with pyriter, and partakes of the same character as that at the Sugar Bush Reef, which, he says, affords good prospects of successful treatment by the cyanide process. Your directors have, therefore, under the joint advice of Mr. Leyson and the manager, proceeded with some development at the Sugar Bush Reef, and submitted some of the ore to a test treatment by the cyanide process. The United Ivy Company, in our immediate neighbourhood, has already erected a cyanide plant for the purpose of dealing with the pyritic ore, and through its courtesy the manager has been able to report as to the result of a trial of the ore from the Sugar Bush Reef. Writing upon this subject in March of the present year, Mr. Hawkins says;—"This is worth doing some more work upon. The assayer of the United Ivy Company yesterday gave me the results of the seven samples of ore. The average was 19½ dwts. Our previous assays had not approached that result. The cyanide test of same samples was not yet ready. The above result is, of course, very encouraging, and fully justifies our spending at least the amount suggested in my letter of June last, I shall, therefore, commence work at once. Should the assays continue favourable I would crush, say, a 20 to 30 ton sample from the drift, and send the tailings to the Ivy Cyanide Works to be tested. I quite agree that the assays we have hitherto had from this reef show that the ore could not be treated profitably with our present mill, but if we can open up any considerable quantity of the same grade as our last average assay, and the ore can be treated by cyanide, we should be able to make a profit." With regard to the erection of a cyanide blant, Mr. siderable quantity of the same grade as our last average assay, and the ore can be treated by cyanide, we should be able to make a profit." With regard to the erection of a cyanide plant, Mr. Hawkins estimated it would cost about £1000 to erect a plant capable of treating 1600 tons per month, but he recommended the board to wait the result of a test case now pending between the MacArthur-Forrest Company and the May Consolided against the MacArthur-Forrest Company, it will save us a royalty of 10 per cent. It is expected to come off in August or September, I believe. Mr. Hawkins subsequently reported that he had had forther assays of similar ore made by the Bank of Africa at Johannesburg, with a result of 15 dwrs., being slightly less than the result arrived at by the Ivy Company. With respect to the cyanide tests, Mr. Hawkins reported that one yielded 10 dwrs. 9 grains from an assay value of 1 ounce 1 dwt, 144 grains—say 50 per cent.; the other gave 9 dwrs, 48 grains—slightly less than the first. No. 2 was then treated a second time, and yielded a now to get the gold out of the mine, and to produce dividends. In the first. No. 2 was then treated a second time, and yielded a further 2 dwts. 3 6 grains, or a total of 11 dwts. 14 4 grains from a double treatment, the assay value of the residue being also considouble treatment, the assay value of the residue being also considerable. He adds:—"So far, the test by cyanide treatment of the Sugar Bush ore may be considered satisfactory, and, provided we can open up a large quantity of ore of the same grade, it would prove payable. I am, therefore, continuing work driving and cross outting; results of further assays will be forwarded to you shortly. It is of no use thinking of erecting plant until we have a large body of carefully-tested ore actually in sight." Later on in the present year Mr. Hawkins had the tailings, which had not been previously dealt with, treated experimentally, and reported that 6 dwtr. could be recovered at a cost of about 11s, per ton. In a later letter, dated May 10, he says:—
"The probable cost of a plant to treat 1000 tons per month would be about £800 to £900. The tailings we have in hand would about pay for cost of treatment, and perhaps leave the plant to the good." Under all the circumstances, the directors have, as mentioned in the report, exercised some considerable economy in the management, report, exercised some considerable economy in the management. They have entirely remitted their fees as from December 31 last, the consulting engineer's salary has, at their own suggestion, been discontinued, the secretarial charges have been also voluntarily reduced by one-third, and Mr. Hawkins has consented, as from Jone last, to

a reduction of his salary to £500 per annum. With respect to the work for the present year, it appears that up to the end of May last, which is the latest date to which we have received accounts from the mine, the gold won has been sufficient to defray the actual working expenses at the mine, together with the establishment charges on the present reduced scale, and leave a profit of about £300. The directors hope that as soon as the trial of the MacArthur-Forrest Company and others is concluded the line to Barberton may also be approaching completion, and then some considerable exponsies both approaching completion, and then some considerable economies both in cost of transit and royalties may be secured; meanwhile, Mr. Hawkins is proceeding with development at the Sugar Bush reef, as recommended by Mr. Leyson, and we are looking forward to having a good body of pyritic ore for treatment after the tailings have been dealt with, as recommended by the manager. I think, gentlemen, that with this information before you you will be satisfied that your directors have done the best that could have been done in the interest of the shareholders, and you will, I am sure, admit that both the directors and the staff generally have shown an earnest desire to do the work under the present circumstances with considerable retrenchment, but with unimpaired zeal and efficiency. (Applause,) I do not think that it would be wise of us to contemplate the erection of a cyanide plant until we have in reserve or in sight a considerable body of payable ore from the Sugar Bush reef. The Barberton railway will, I think, shortly be completed, and I need hardly tell you that it will be a great advantage to us in many ways in the transport of machinery, &c. I think, gentlemen, I have given you all the information in my possession, and I beg to move the approaching completion, and then some considerable economies both you all the information in my possession, and I beg to move the adoption of the report and accounts.

Mr. L. B. Twentyman seconded the motion,
Dr. Lister had intended to propose certain reductions in the expenditure, but the remarks of the Chairman had rendered it un-

recessary for him to do so.

The CHAIRMAN mentioned that the board did not propose at present to fill up the vacancy caused by the death of Sir Richard Meade. (Hear, he ir.)

The motion was then put and carried unanimously.

On the motion of Mr. VENNING, seconded by Mr. PERVITE, the re-election of Mr. Twentyman to the board was unanimously carried. The auditors, Messrs. Westcott and Co., having been re-appointed the meeting terminated with a vote of thanks to the Chairman.

THE WOLVERAND GOLD MINES, LIMITED.

A prudent policy of management.—The value of the property.

The first ordinary general meeting of the shareholders of the Wolverand Gold Mines (Limited) was held on Tuesday, at Cannon-street Hotel, the chair being occupied by Mr. CURWEN SISTERSON.

The SECRETARY (Mr. E. N. Dawe) read the notice convening the

meeting.

The CHAIRMAN said:—Gentlemen, I have no doubt you will take the report as read. Since we last had the pleasure of meeting you several important events have taken place in the history of this company. At the time of the reconstruction, just a little over a year several important events have taken place in the history of this company. At the time of the reconstruction, just a little over a year ago, when everything was in a dark and gloomy condition, the larger number of the shareholders of the Notre Dame Company supported the efforts then being made for the retention of the Wolwerand property. Hence the reconstruction was effected. In case there might be one or two shareholders present unacquainted with the course matters took at that period, it might be perhaps advisable for me to remark upon the chief modifications which were then made in the Notre Dame Company. The Notre Dame Company and the which little was known, consisting of 145 acres of gold-bearing land. For that property they paid a rental of something like £1500 a year. The capital of the company was then a quarter of a million. We set ourselves to work upon a scheme of reconstruction, and instead of following the usual course of keeping the capital of the company at the same figure, we reduced it from a quarter of a million to £100,000. Contemporaneously with that, however, we acquired a vastly extended mining area. The 145 acres which the late company had held, and for which they paid a rental of £1500 a year, was increased to the extent of 600 acres, and this was accompanied by the reduction of the rental to £500 per annum. (Cheers.) At that time a good deal of scepticism prevailed—even among those shareholders who came forward and supported us in the efforts which we made to improve the company's position—as to the value of the property. Our attention was of course draws. made to improve the company's position—as to the value of the property. Our attention was, of course, drawn to the fact, and we have endeavoured to do what we possibly could to prove the value of our possession. Our fands were limited, and we had to do the best we could with the means at our imited, and we had to do the best we could with the means at our disposal, and as the result of nine months working on the most economical lines possible, and with the constant direction of competent engineers, we have proved the Wolverand to be a gold-bearing property throughout. (Cheers.) Scepticism prevailed as to the payable nature of the ore to be found on the property, but we have been able to refute our most hostile critics by showing that the property contains gold of a payable obaracter, equal in assaying and milling results to some of the best paying properties in the Witwatersrand. We feel that there we certainly have accomplished something, though we have not had at our disposal the means to turn this property into a dividend-paying concern. At the least we have ascertained the fact that gold of a payable character exists there and in large quantities. (Hear, hear.) Everybody in the Transvaal now believes that the Wolverand is valuable, and that when you have a proper battery and the means of mining efficiently and economically it will pay handsomely. It is something to know that you have a profitable asset there, which sooner or later must become directly remunerative to you, and gain the confidence of not only yourselves but of the investing world generally. Now the only now to get the gold out of the mine, and to produce dividends. In order to do that, however, we must have an efficient battery, and capable machinery, and in order to obtain this a large capital expenditure will be necessary, such as at this particular time we do not feel justified in recommending. I will tell you why Klerksdorp is in the position now that the Witwatersrand was in a few years ago. The Witwatersrand then was a vast mining area, about which the was known. Money was being lest there. Senticing had ago. The Witwatersrand then was a vast mining area, about which little was known. Money was being lost there. Scepticism had prevailed as to the value of the district, just as scepticism has prevailed as to the Klerksdorp district, now being removed. From all parts of South Africa you will find the confidence in the Klerksdorp district extending. There is the Bufflesdoorn Mine there, which a short time ago was in debt something like £30,000, and which sum has now been entirely wiped out from the profits obtained by the treatment of similar grade ore to that of the Wolverand, with the simple difference that it has been properly and colentifically worked. Attention is now being directed to this particular district because of the fact that the Eelandslaagle—the adjoining property—is known to be a valuable one. They, however, have a proper mill.

resuming crushing operations, which will all tend to prove the value of our property, for their reefs run into ours. Seeing that we have not a 20 or 30 stamp mill with which we can efficiently crush the Wolverand ore, we must for the time being suspend operations, in the knowledge, however, that we have proved that the Wolverand property contains what the Afrikander and Relandslaggte also contain. I do not wish to take up your time, but I must emphasise one point with you. The most flourishing mines in the Transvani to-day are those whose results are being obtained not by the original sharepoint with you. The most flourishing mines in the Transvala to-day are those whose results are being obtained not by the original shareholders, but by gentlemen who have come in certainly on the ground floor at a later period. This is what they call in the Transvala a "freezing out" process. Let us, therefore, profit to a certain extent by experience—that is my advice to you as your Chairman. We have proved that you have a property equal, and perhaps superior, to many of the properties on the Rand, and we want you to gain the benefits of the property you possess. Do not allow yourselves to be "frozen out," but stick to what you have and do not expect too much at once. With the limited means at cur disposal we cannot do all we could wish. By watching, however, and by the development of our particular district, you will reap all the profits. With the advancing value of properties in the Klerksdorp district there is absolutely no reason why with 600 acres of proved gold-bearing properties we should not be able to sell sufficient to pay for the milling and mining machinery which has become so necessary to us. (Cheers.) In conclusion, gentlemen, I have to move the adoption of the report and accounts.

Mr. JOSEPH WALKER seconded the motion.

Surgeon—General DE REEXY enquired whether the board had considered what would be a present of the registed to come

Mr. JOSEPH WALKER seconded the motion.
Surgeon-General DE RENZY enquired whether the board had considered what would be the amount of capital required to commence the working of the property on a small tentative scale. He fully approved of the steps the board had taken in the direction of economies, but the value of the property might be enhanced if some small development at an insignificant expenditure were effected.

The CHAIRMAN said the board proposed to prospect the newly-acquired mining area to a limited extent, but unfortunately before they could pursue operations on a large and extire scale they consided.

acquired mining area to a limited extent, but unfortunately before they could pursue operations on a large and active scale they required a mill, and that would cost them at least £10,000. When, how-ever, the projected railway was made to Klerksdorp the cost of mining would be much less, and there would be the possibility of acquiring machinery and carrying on works much more efficiently and economically. Two of his colleagues were civil engineers, and plans for prospecting had been drawn out, and would at once be put into effect.

The motion for the adoption of the report and accounts was then

The motion for the adoption of the report and accounts was then put and carried unanimously.

The CHAIRMAN proposed the re-election of Mr. Joseph Walker, who, he said, was one of the largest shareholders, had been three times to the property, and took a very active interest in the mining of the Transvaal. Every year he went to the colony for the benefit of his health, and invariably took occasion to visit the property. The company was fortunate in having a director who took so deep an interest in its affairs.

Surgeon-General DE RENZY seconded the motion, which was carried unanimously.

On the motion of Mr. J. S. WALKEB, seconded by Mr. YOMAN, the company's auditors, Messrs. Gribbon and Holroyd, were re-elected.

re-elected

Major RICHARD SEVER, in reply to the Chairman's invitation to address the meeting, said he had been to Wolverand and was able from personal experience and observation to endorse all the Chairfrom personal experience and observation to endorse all the Chairman had said as to the value of the property. He had been down all the old workings, which were very poor specimens of mining engineering, and little better than rabbit warrens, made without any regard to scientific or technical working. The one great fact which struck him was the enormous quantity of ore which existed in places where it could easily be removed. The want of adequate machinery was naturally handicapping them a good deal, but that, of course, could not at present be helped. There was no doubt, however, that when the railway came they would be able by the increased facilities of transport, and by the decreased prices of coal to work much more cheaply than at present. As time went on they would perhaps get of transport, and by the decreased prices of coal to work much more cheaply than at present. As time went on they would perhaps get sufficient capital to erect a thoroughly good mill of at least 20 stamps, which would give them a crushing of at least from 60 to 80 stamps a day. He fully endorsed the Chairman's remarks as to the value of the increased area of the mine. Of the personal efforts of the Chairman in the interest of the company, he could hardly speak sufficiently highly. Had it not been for his energy and sacrifice, they would certainly not have been in their present satisfactory position—in possession of one of the finest properties in Klerksdorp, and better than a great many on the Rand. In view of the extent of the valuable reefs on the property they would easily be able to float subsidiary companies. The men in the colony had a shrewd eye for business, and they might depend upon being shortly approached by some of the meith a view to the purchase of part of their property. Some of the reefs were quite 8 or 10 feet wide, and he had no doubt they would be able to extract from some of the he had no doubt they would be able to extract from some of the principal ones some 3 to 4 feet—probably more—of payable ore. They were not at all prejudicing their interests at the present time by quietly waiting until they were enabled to get sufficient capital to erect the necessary machinery to work the mine in a properly scientific and technical manner. There was no doubt they had a very valuable property, and if he had his choice of the mines in the colony he would choose the Wolverand in preference to by far the

The CHAIRMAN said it must be very gratifying to the meeting to have the perfectly impartial testimony of an independent share-holder as to the value of the property.

Mr. GRIBBON, in returning thanks for his election as auditor, remarked on the invaluable services which he had received from the Chairman in the course of the liquidation of the company's affairs, many of the difficulties attending which he should not have been able to overcome had it not been for his assistance.

The proceedings terminated with a hearty vote of thanks to the Chairman, proposed by Mr. S. BECHER.

NEW PINOS ALTOS COMPANY, LIMITED.

Prospects decidedly encouraging.

The second ordinary general meeting of this company was held on Monday, at the Cannon-street Hotel, the Right Hon, the Earl of Onslow (the Chairman) presiding.

The CHAIRMAN, in moving the adoption of the report and accounts, said he regretted that they were so late in holding the meeting, but the cause was the difficulty in obtaining the accounts from Mexico. They were in a better position in regard to their balance sheet than they might have expected. Only \$188.89.44. from Mexico. balance sheet than they might have expected. Only £1888 9s. 4d. was incorred on the capital expenditure, and, with the exception of adapting the mill to water power, in order to take advantage of the rainy season, and carrying out other improvements referred to in Senor Echevarria's report, the outlay on this head might be considered at an end. The Pelton wheel had been ordered, and was probably at that moment in working order. During the rainy season they had arranged to dam up the water, sufficient to work the mill for two or three months, thereby saving fuel. It was a matter of great regret to the directors that they could not show a better profit and loss account. The total loss on the year was £9967 0s. 5d. It would be noticed the auditors had stated the profit and loss account at 2s. 7d. per dollar, the average rate of exchange of remittances and receipts for the year, but the floating assets and liabilities at Mexico have been taken on the 31st December, 1893, at 2s. 3½d. per dollar, the current rate at that time. The balance sheet than they might have expected. Only £1888 9s. 4d. at Mexico have been taken on the 31st December, 1893, at 2s, 3½d. per dollar, the current rate at that time. The directors looked forward to much greater prosperity in future. The plan on the wall clearly showed what they had been doing and the reasons for their brighter loopes. During 1893 they ran out the 13th level west from the main shaft. This was done under considerable difficulties owing to poor ventilation. They, therefore, decided to sink No. 5 shaft 274½ feet, and so set up a carrent between that and the main shaft. After driving through 906 feet

along the 13th level it ran into a high grade ore body. As to the value of the ore he should like to compare the output for the year 1893 with that up to June 30th of the present year. In 1893 the mine produced 22,093 tons of the value of \$20.39 per ton, while, up to the end of June, 1894, the product was 12,426 tons at \$31.80 per ton. They had had to spend a large amount on timbering, not only in the different workings opened up during the year, but also to sustain the old work. This latter expense, of course, would not occur again. The prospects of the company were certainly more brilliant than before, at the same time, he was not one of those who wished to mislead shareholders by too sanguine views.

In reply to shareholders, the CHAIRMAN said Mr. Alten was nite correct in saying a good deal of exploration work In reply to shareholders, the CHAIRMAN said Mr. Alten was quite correct in saying a good deal of exploration work would have to be done, but that, however, would be done out of the current revenue. With reference to the mine managers reports being communicated to the Press, there was only one objection—that they were invariably somewhat miscleading, being drawn up by rule of thumb, and generally differed materially from the substantiated accounts. In respect to paying an interim dividend out of the returns to hand, they could not deduct any inference from the amount of bullion, because at the same time drafts were being drawn by the manager, and the whole accounts had till lately been in the hands of the Bank of Mexico. There was one thing the present board would not do—they would not pay dividends out of anticipated profits. With regard to which of the levels the ore came from, the \$318 he gave was the average of the whole ore worked, only a small portion of it came from the 13th and 15th levels.

The motion for the adoption of the report and accounts was then

The Earl of Onslow and Messrs. Price, Waterhouse and Co. were e-elected respectively director and auditors.

A cordial vote of thanks to the Chairman closed the meeting.

THE MONTROSE MINING AND EXPLORATION COMPANY, LIMITED.

A good year's working.—The new coal seam

The ordinary general meeting of the shareholders of the Montrose Gold Mining and Exploration Company (Limited)] was held on Wednesday, at Winchester House, the chair being occupied by Mr.

Gold Mining and Exploration Company (Limited)) was held on Wednesday, at Winchester House, the chair being occupied by Mr. THOMAS BELL.

The Seoretary (Mr. W. Marshall) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen, you will take the report and accounts as read, I presume. There fivery little I can add to the information already in your hands, but I should like—and you will expect me—to make a few remarks on the charges appearing in the secounts. The London charges appear in the accounts as £436 12s. 10d., and the magnitude of the sum is due to the fact that it includes some exceptional charges—for instance, the fews for two years audits, and some legal charges that were paid last year, with some other little items, bringing the sum up to the figure entered in the accounts. Many of these items will not occur again, and I may say that the directors have had the whole matter under consideration, and we hope, in the course of this year, to make some redoction even upon the standing charges in London, so that we may keep the expenses at as low a figure as is consistent with efficiency. Then as regards the Transvaal expenditure, and the salaries there, I may remaind you that after the Central Montrose was taken from this company, we retained the services of Mr. Hawkins for a time—a step which we thought to be in the interests of the company. In this charge of £741 for the Transvaal salaries there is included the remuneration of Mr. Hawkins for 17 months, and that will not recur. With reference to the other charges, we have already written out to the manager telling him he must practise economy so far as is compatible with the efficient management and working of the company's estates. There is, therefore, every reason to believe that in the next account these charges will be considerably reduced, You will also notice that we have written off £122 10s, 3d, as the final balance of the profit and loss account there is an item of £128 10s, for profit on sale of sendry investments that we not have a SECRETARY (Mr. W. Marshall) read the notice convening the with pyrites, and partakes of the same character as that of the Sugar Bush Reef, which, he says, affords good prospects of successful treatment by the cyanide process. Your directors have, therefore, under the joint advice of Mr. Leyson and the manager, proceeded with some development at the Sugar Bush Reef, and submitted some of the ore to a test treatment by the cyanide process. The United Iry Company, in our immediate neighbourhood, has already erected a cyanide plant for the purpose of dealing with the pyritic ore, and through its courtesy the manager has been able to remore as to the a dyanide plant for the purpose of dealing with the pyritic ore, and through its courtesy the manager has been able to report as to the result of a trial of the ore from the Sugar Bush Heef. Writing upon this subject in March of the present year, Mr. Hawkins says:

This is worth doing some more work upon. The assayer of the Boired Ivy Company yesterday gave me the results of some samples of ore. The average was 19½ dwts. Our previous assays had not approached that result. The cyanide test of some sample was not yet ready. The above result is, of course, very encouraging, and fully justifies our spending at least the amount suggested in my latter of June last. I shall, therefore, commence work at once. Should the assays continue favourable I would crush, say, a 20 to 30 n sample from the drift, and send the tailings to the lay Cyanide Wo kayn he tasted. I quite agree that the aways we have hithered had from this reef show that the ore could not be treated profit-

ably with our present mill, but if we can open up any considerable quantity of the same grade as our last average assay, and the ore can be treated by cyanide, we should be able to make a profit."

The Central Montrose board have later advices from the manager, with the accounts up to the end of May, which showed that during the six menths he had been able to work the mine, and obtain a profit of about £300. As to the £6000 still due from the Central Montrose to this company, to which and obtain a profit of about £300. As to the £5000 still due from the Central Montrose to this company, to which I referred when we last met, that is in precisely the same position as it was then. We still hold the security of the last call of 1s 6d. which can be made by the Central Montrose Company, and we have also, of course, the property itself to fall back upon. We are very carefully watching over the interests of this company in relation to that matter. At present we hardly think we should further your interests by pressing for the payment of the sum, but we have the matter fully in mind, and if need be we shall call you together to consider what had better be done. I have only further to say that I regret circumstances should have made it necessary for our friend, Mr. Brand, to leave London and that he should have been, in consequence, obliged to sever his connection with the board. We part with him very regretfully, for he was extremely useful to us and took a deep interest in the affairs of the company. We do not at present ask you to fill up his place. Indeed, I think it would probably be difficult to get anybody to join the board under the present circumstances, when there is work to do and no pay. If you will leave these matters in the hands of those who are at present on the board we will do our best for your interests. I shall, of course, be glad to answer any questions you may care to ask, and in the meantime, I beg to move that the report and accounts be and are hereby received and adopted.

Mr. J. S. PRINCE seconded the motion.

Mr. J. S. PRINCE seconded the motion.

A SHAREHOLDER enquired the value of the fully paid shares in the Central Montrose mentioned in the accounts.

the Central Montrose mentioned in the accounts.

The CHAIRMAN: They are quoted at the round figure of £40,000 A SHAREHOLDER: The market value is only about 1s.

The CHAIRMAN: Of course to be set against that there are 17 farms quoted here at £2150, but worth a great deal more than that. When the company was formed these farms were put in at a nominal figure, and we have just kept them so.

The motion for the adoption of the report and accounts was then put and carried unanimously.

on the motion for the supplies of the report and accounts was then put and carried unanimously.

On the motion of Mr. Venning, seconded by Mr. Allars, Mr. Thomas Bell was re-elected to a seat upon the board.

The auditors, Messrs. Welton, Jones, and Co., having, on the motion of Mr. Previta, seconded by Mr. Scott, been reappointed, the proceedings terminated with a vote of thanks to the Chairman,

JULIA-TALTAL NITRATE.

Contract with the Taltal Railway Company .-Improved prospects.

The statutory general meeting of this company was held uesday, at Winchester House, Mr. H. W. CARTER presiding.
The SECRETARY (Mr. F. Stobbs) having read the notice conven

The CHAIRMAN said:—Gentlemen, I have much pleasure in meeting you to-day. This is merely a statutory meeting, called in compliance with Act of Parliament. We have no business to put before you, but we take the opportunity of saying that if there is any information that any member wishes for we shall be very pleased to give it to him. I have already been several times over the ground of the prospects of the company and of our property, and I do not think I need repeat myself on this occasion. There are, however, two matters which you ought to be informed upon. One of them is that we have made a contract with the Taltal Railway Company on fair and reasonable terms. (Hear, hear.) No doubt you are all aware that such an agreement is vital for us. It was of the atmost importance that we should get railway carriage right away from the oficina down to the port of shipment, and, as I say, we have now concluded a contract for that purpose. The other matter on which I should like to congratulate you is that we have made an arrangement with a gentleman, Mr. Provand—who has had great experience in Chili, and bears, I think, the very highest reputation among Chili men and Englishmen interested in Chili, of any body I know—to proceed about the end of next month or early in The CHAIRMAN said :- Gentlemen, I have much pleasure in mee body I know—to proceed about the end of next month or early in September to the Pampas and make arrangements for the opening of traffic as soon as the railway branch is completed. I think it is a most fortunate circumstance that we should have been able to secure the services of that gentleman, whose experience and known character will bear comparison with anybody. If there is any noint on which any shareholder wishes for information, I shall be delighted to give it to him.

Colonel RYLAND: Does the contract state when the railway is to be completed? Must it be finished by a certain date, and is there any penalty if it is not finished at that date?

any penalty if it is not finished at that date?

The CHARMAN: The only time that we could get the directors of the railway company to fix was, in the first place, with all practicable speed, and in not more than 12 months. We urged very strongly that they should make it six months, but they said that the responsibility of sending out material via steamer, which might be wrecked—as was the case with some of their material previously—was so great that they would not bind themselves to anything below 12 months.

months.

Mr. BLACK: How long would it have taken this company to have made the railway itself? Would it have been possible for the company to have carried it out now that you have the funds in hand?

The CHARRMAN said he would answer all the questions at one

time.

Mr. MAY asked if the company had an ample supply of water.

Mr. Arbuthnot: There is one point on which I should like to have your assurance, sir. I see that on the shares there is 16s. credited as paid. I presume that under no possible circumstances could that 16s. be called up. No doubt, you will be able to give me a satisfactory answer; but I ask the question because in some scheme of reconstruction of a mining company there has been livigation on a legal question involved, as to whether the amount credited in that way can be recoverable from the sharsholders. can be recoverable from the shareholders.

way can be recoverable from the shareholders.

Mr. Jay said that the Chairman in his address had omitted to refer to the addition which had been made to the board, to the great advantage of the shareholders, since the company was registered.

The CHAIRMAN: I am very much obliged to Mr. Jay for pointing out my omission. The board has—very fortunately, as I think—been able to recure the services, as directors, of Mr. Morrison and of Mr. Price, M.P. I have only had the pleasure of meeting them four or five times, and can only tell you that I have found them to be thorough men of business, and I am very glad indeed that they have joined us. (Hear, hear.) As to making the branch line ourselves, that would have been the only possible thing for us to have done if we had not been able to make the contract with the Taltal Railway Company. As a matter of course, the railway company, having its officials and labourers and materials out in the Province of Taltal, would be able to make the line a very great deal having its officials and intogeres and materials out in the Province of Taltal, would be able to make the line a very great deal cheaper than we could have done it. We had several schemes before us, one of which we must have adopted if we had not made the contract with the railway company. We should, no doubt, have made a worse line at a greater cost, and probably we should have taken a much longer time than the railway company will be able to do it in. Again, if we had had our own line we could only have carried it than form Reference Station and we must have had a regular warshouse. is in. Again, it we had had our own time we could only have carried it it as farms Refrerco Station, and we must have had a regular warehouse there for receiving the nitrate to be put on the railway to go down to Taltal, and also to receive our coal going up from Taltal, and we should always have been obliged to keep one or more people constantly at that point. Not only that, but in all probability we should not have made as good a contract with the railway company for the carriage between Refresso and Taltal as we have now made. (Hear, hear.) As in water, I have already had several opportunities of tasting that the amount of the form of the carriage between the carried to the carriage between the carried to the carr or shar 18-a appeals of water to ample for our ments, and our wall tal from this reef show that the ore could not be treated profit- being situated on the underground river, by widening it we can, no

doubt, increase the quantity enormously if we should ever require it. As to the possibility of liability for the 16s, per share which was credited as paid up, we have been regularly through the mill, under the guidance of our respected solicitor (Mr. Choome), and we have made it so clear that it is an absolute certainty that nobedy can be called upon for any part of that 16s. (Hear, hear.) I ought, perhaps, to say, with reference to the branch, that the railway company makes the line and pays the cost of making it, and although I would like to have driven a harder bargain with the railway company, I am satisfied with what we have got.

A SHAREHOLDEE: What penalty is there if the line is not completed within 12 months.

A SHAREHOLDER: What penalty is there if the line is not completed within 12 months.

The CHAIRMAN: We could not get any penalties except proved damages—no absolute penalties on either side.

Mr. A. MARSHALL JAY said he was sure all present would agree that the progress made since the formation of this company was extremely satisfactory, and spoke volumes for the ability, energy, and perspicacity of the board. In these days it required not only the harmlessness of the dove, but the wisdom of the serpent to bring any enterprise to a successful issue, and the directors of the Julia Taltal company, they must all feel, combined those qualities in a marked degree. The present price of the shares was an enigma. He had asked many members of the Stock Exchange to account for it, and generally received the reply:—"Remember how low the price of the shares in the old company was before it was reconstructed." Yee, but at that time they were "up to their eyes in debt"—as the song said—they had no working capital, and as to the all—important question of the railway, they were told that it would never be made, for even if the money for its construction were forthcoming, the Taltal Railway Company were so blind to their own interests and were so fast asleep that they would never take the matter vigorously in hand. But how did the company stand at present? In the first place they had no debts—they were wiped clean out; secondly, they had ample working capital; and thirdly, the contract for the railway was signed and sealed, and the navies were at work upon the line, which would soon bring the outside world into contact with their estate, and prosperity and fortune to them all. (Applause.) How it came about that under these most favourable conditions their shares stood at the ridiculous price of 5s. he could not imagine. They would be undoubtedly cheap at par; at their present quotation they were not only a bargain—they were agift. He had just come They would be undoubtedly cheap at par; at their present quotation they were not only a bargain—they were a gift. He had just come up from Essex, and had been distressed to see the land going so rapidly out of cultivation, and that which was cultivated producing rapidly out of cultivation, and that which was cultivated producing such poor crops. He reflected that for probably 800 or 1000 years this land had been ploughed, sown, and reaped until all its vitality was gone. But if only it could be fertilized with a treatment of nitrate, it would be a great advantage to the nitrate industry generally and also to the worthy agriculturists. It would be well worth the while of Members of Parliament to devote some of their valuable time to urging the Government to assist distressed agriculturists to purchase nitrate, and so help to restore the chief of all industries. There was one question which he wished to ask before sitting down, and that was as to the extent of the company's property. Its size was so great that it was hardly possible for one company to develop it. Would it not therefore be advisable to sell or lease a portion of it. He had heard it stated that the board had been approached with this object, and he wished to ask if that were so. If it were, and a bonus or a dividend of 5s. or so a share could be paid within a few months of registration, none of the shareholders would take it amiss.

months of registration, none of the shareholders would take it amiss

(Laughter, and hear, hear.)
The CHAIRMAN thanked Mr. Jay for his amusing and pleasant The CHAIRMAN thanked Mr. Jay for his amusing and pleasant speech. He could endorse the remarks made as to their being free of debt—free of debentures, free of preference shares, and all the rest of it—(hear, hear)—and he did not know any reason why they should not make a great success of the company. (Applause.) The question of the price of the shares was one of those insorutable matters which nobody outside the Stock Exchange, he should think, could possibly understand, (Laughter, and hear, hear.) He lately had an interview with a gentleman who raised a number of difficulties and asked extractions of the country had an interview with a gentleman who raised a number of difficulties, and asked abstress questions on the subject of this property. That gentleman was not satisfied as to the area of the property, he was not satisfied as to the area of the property, he was not satisfied as to the amount of water which they would get to convert the caliche into nitrate, nor was he satisfied as to the depth of the ground of the caliche. He (the Chairman) did his best to satisfy that individual on every point, but, to his surprise, he turned round and said, "I do not believe you have any ground at all." (Laughter.) He could only surmise from the gruffness of his remark that he could have been nothing but a bear. (Renewed laughter.) A question has been asked as to a part of the ground being worked in connection with another company. It was true that an inquiry had been made, and the board had expressed their willingness to consider the question if anything like a decent offer could be placed before them. (Hear, hear.) In all probability two companies might work the estate rather better than one, but at the same time they would not part with any of the property belonging same time they would not part with any of the property belonging to the company without first calling the shareholders together. (Hear, hear.)

(Hear, hear.)

Mr. ABBUTHNOT moved that a hearty vote of thanks be accorded to the directors for their able conduct of the negotiations which had led to the improved position and prospects of the company. The improvement had not been brought about without considerable trouble on the part of the directors. He heartly congratulated his fellow proprietors on being free from the preference shares and the debenture dabt, and felt sure that the carrying out of the reconstruction involved a great amount of work and attention to details. (Hear, hear.)

(Hesr, hesr.)

Major Hume, in seconding the vote, suggested that if any division of the property were eve effected it should be made lengthways—that was to say, from top to bottom. Great care should be taken not to lose any of the upper portion of the ground without some of the lower portion also. He had gone over the property and knew that the upper part was most valuable and rich, and he daresay the people who wanted to acquire it would look after their own interests. He thought it would be as well for the board to take care that they did not part with the rich ground and leave that which was poor for the shareholders. (Hear, hear.)

The motion was carried with acclamation.

In reply, the Chairman briefly thanked the shareholders for their confidence and support, and added that the directors would be very foolish if they parted with the plums and left the dough for the company to work. (Laughter, and hear, hear.)

The meeting then closed.

HARRIETVILLE GOLD MINING COMPANY, LIMITED.

The new property.—Some promising assays.

The sixth ordinary general meeting of the shareholders of the Harrietville Gold Mining Company (Limited) was held on Monday, at the offices of the company, 6, Queen-street-place, the chair being count GRIMSTON

The SECRETARY (Mr. J. Garland) read the notice convening the

secting. CHAIRMAN said :- Gentlemen, I have now to draw your The CHAIRMAN said:—Gentlemen, I have now to draw your attention to the property in the possession of the company. From the great many reports and circulars which have been sent out dering the course of the year and published in the newspapers you will all have been aware that the average yield of quartz in the Harristville Mine has continuously shown a decrease in the ore treated. The average yield of ore for the first year—1891 to 1892—was 9 dwts, 7 grains, for 1892 to 1893 6 dwts, and 12 grains, while for 1893 to 1894 the average has been 1 am serve to say as low as 5 dwts. 1894 the average has been, I am sorry to say, as low as 5 dwts. 14 grains.
The consequence of this has been that though the earnings for the year have reached £12,599, that being the value of the gold sold, we regret to say that, after writing down the proper sums for depreciation, it e less on the year's working is £2616. That, of course, is a very serious thing. Before going any further in describing the efforts we have made in your hehalf, I will briefly refer to the retirement of our Chairman, Lord Ribblesdale, which took place

in the course of last year. Lord Ribblesdale, after serving the

in the course of last year. Lord Ribblesdale, after serving the company well for some years, has accepted an office under Government, and he has thought it his duty to sever himself from some of his company work, and, among other things, has felt bound to give up our old friend the Harrietville. We are all regretful that Lord Ribblesdale has felt it incumbent on him to take this step, and, while thanking him heartily for his past work, we trust that we may be able to carry on the work in the future as well as in the past. I am sure that I am echolog the sentiments of all of you when I express my own thanks to him. (Applause.) In view of the serious reduction in the value of the returns from the Harrietville we have thought very carefully as to what steps we should take in the endeavoor to make it a paying concern. We have by no means lost hope in the mine. Gold is still being found. Some £12,500 worth of gold cannot be got out of a barren mine, and it is possible that at any moment we may come upon a bonanza in the old mine. It behoves us, however, to take the position of the mine seriously into account. The directors thoroughly appreciate the present situation, and have taken a good deal of thought as to the best thing to be done to keep the company going until such a time as the quartz may improve in quality—in fact, to make both ends meat until we have finished the difficult task of crossing the stream. Well, the directors, having the advice of Mr. Davey—in whom we have an excellent and practical manager in Australia—cast about to see if they could not obtain some subsidiary assistance in the form of a lease of a property to be worked. We were able to discover a certain mine called the St. Bernard, referred to in the report, of which Mr. Davey strongly recommended the purchase. We had the power to purchase it, or a portion of it, and your directors, fully conscious of their responsibility, and after careful thought, decided that it would be highly advantageous in the working of the Harrietville Mine if we po we do not see the slightest reason to doubt that we have got what is a very valuable addition to our mining property for a very small outlay. It will be necessary to construct a small tramway—some two miles and a quarter in length—for the purpose of conveying the quartz from the mine to the mill. According to Mr. Davey's estimate the cost of that will be under £1000, and I trust that when that is completed we shall be able to convey the quartz cheaply and expeditiously to the mill, and that the result of its treatment will be such as to warrant us in continuing the work. Having regard to the full knowledge you have through the medium of the papers of the operations of the company, I do not think it will be necessary for me to make a long speech on this occasion. I will merely ask you to signify your approval of what the directors have done, and I trust that at the end of the year we shall have a better result to report to you, and such a result if it do come wii', I am sure, be mainly owing to your acquisition of the portion of the I am sure, be mainly owing to your acquisition of the portion of the additional property. There is one telegram which I think you ought to hear which we received on July 28th.—"Mons Meg Mine, 500 tons, 125 ounces. There is no material change in the workings since annual report sent. Winzes from D. level should be sunk 100 feet tons, 155 ounces. There is no material change in the workings since annual report sent. Winzes from D, level should be sunk 100 feet deeper. Bernard.—The repairs are nearly finished in the old workings. The mine has a most favourable aspect." In the annual report sent from the mine, it says that in one place there were some 20 tons of ore extracted, which gave an average yield of 1 ounce 18 dwts. to the ton. We also had better reports than that, but they were so favourable that I hardly like to mention them, because such reports if they get into the papers are apt to convey the impression that this high assay would be the average throughout the mine. There is one matter to which I have to refer, which has occasioned great regret to myself and colleagues. A gentleman, one of our shareholders, has taken action against the company to prevent them from purchasing this mine. He practically relies on certain words of our Articles of Association which he interprets in a certain manner. We have had the best advice in the matter, and it is to the effect that we have full powers to take this step, and we

Certain works of our attorned as a certain manner. We have had the best advice in the matter, and it is to the effect that we have full powers to take this step, and we believe that in doing this we have furthered the best interest of this company. I simply ask you then to express your approval of the action we have taken. In conclusion, I have to move the adoption

action we have taken. In conclusion, I have to move the adoption of the report and accounts.

Mr. Francis Betallack seconded the motion.

Mr. Holland: How big is the mine?

The CHAIRMAN: It is rather difficult to say how big. It is a mine which has been worked for many years, and one that has turned out very well. Unfortunately a slide occurred—a sort of dislocation of the lode—and they had not enough money to enable them to recover it again. We have been rather more fortunate, and have struck what is described as a very his and who hade.

what is described as a very big and rich lode.

Mr. HOLLAND: How big is the new property in point of acreage?

The CHAIRMAN: I am not sure.

The CHAIRMAN: I am not sure.

Mr. JOHN TAYLOR: We shall receive plans by the next mail.

Mr. JEPPS said it appeared to him that the acquisition of the new property was a fair enterprise, and one upon which in any case they would not be able to lose much. The vender had showed his confidence in the concern by allowing so large a portion of the purchase money to depend on profits. In regard to the other operations of the company, while they could wish that they had turned out better, they were at the same time quite confident of the bona fides of the directors and managers. (Hear, hear.) To his thinking there could be only one opinion as to the advisability of the step which had been taken.

The motion for the adoption of the report was then put and carried

unanimously.

Viscount Grimston, the retiring director, having been re-elected, and the auditors, Messrs. Cooper Brothers and Co., reappointed, the meeting terminated with a vote of thanks to the Chairman.

Subsequently an extraordinary general meeting was held, when a resolution was passed authorising the addition of the name of Mr. Edgar Taylor to the firm of managers named in the Articles of Association.

THE MASHONALAND AGENCY (LIMITED).—An extraordinary general meeting of the Mashonaland Agency (Limited) was held at the offices of the company, No. 8. Old Jewry when on the motion of Mr. Lee Hoskins, who presided, resolutions passed at a previous meeting reconstructing the company, were confirmed.—The Chairman explained, in moving the resolutions, that the step was taken in order to eliminate the remaining 10s, liability on the shares, and to make them fally neid. The new company would have a comical. wake them felly paid. The new company would have a nominal capital of £100,000 in 100,000 fully paid shares. Of these 50,000 would be given to the old shareholders, and an additional 25,000 allotted to them in the proportion of one to every four held, and the remaining 25,000 kept in reserve and disposed of, as they hoped, at a premium.—The confirmation of the resolutions was seconded by Mr. Gervers, and carried unanimously.

AN IMPORTANT MINING CENTRE.—The Kolar gold field is doveloping space under British capital and enterprise, and bids fair to become an important feature in Mysore State. In the gold industry skilled labour is, of course, more in request than in coal mining or in alluvial tin mining; nevertheless, the native population who find employment or are dependent on the Mysore gold mines is consider-able, and not a factor to be despised in the interest of the country.

THE NEW GOLD HILL COMPANY, LIMITED.

An advantageous agreement.—Unanimous acceptance

An extraordinary general meeting of this company was held at the Cannon-street Hotel, Cannon-street, yesterday, to consider the present position of the company, and certain proposals made by Mr. John H. Todd for the future working of the mines and the treatment of the ores by a chlorination process, and to pass such resolutions as might be deemed advisable.—The chair was occupied

Mr. John H. Todd for the future working of the mines and the treatment of the ores by a chlorination process, and to pass such resolutions as might be deemed advisable.—The chair was occupied by Mr. ARTHUR WORKINGTON BIGGS.

The SECRETARY (Mr. Richd. L. Hobbs) read the notice convening the meeting.

The CHAIRMAN said:—Gentlemen, we have asked you to meet us to-day in order to enable us to lay before you an agreement which we have entered into with a Mr. Todd, subject, of course, to your approval, for the working of your mines in North Carolina on a somewhat novel basis. As the agreement, being a legal document, is naturally somewhat complicated, I shall ask our solicitor to read it to you, and you will then be in full possession of all the details of the case, and be able to form your own conclusions as to whether it is desirable to accept this agreement, and will know what are its merits and demerits. Before doing so, however, I should like to call your attention to one or two facts. I think we should consider the present condition of the mine and prospects of the company as being materially improved by the agreement. As to the mine, you will doubtless recollect that when we last met you in December we explained to you why we had closed it down. We told you that, having come to the conclusion that unless a very considerable amount of fresh money was expended in the erection of chlorination and other works it would be perfectly useless to expect, the mine to pay, we had therefore shut it down, so as to save a useless expenditure, and to leave us sufficient money to maintain the property intact for the present. What is required at the mine is that these experimental works for chlorination and other methods should be carried out. Of course, this will cost money, but we don't propose to ask you to find it nor to run the necessary risk of such an experiment, and we think you will agree with us that one of the chief merits of the agreement which we lay before you to-day, is that these experiments will be tried for u he is an Englishman. We are informed that he has resided for about seven or eight years in America, that he has had considerable mining experience, and experience of the management of chlorination works. He also owns and works a small mine in our immediate neighbourhood, and so convinced is he that he will be able to treat our ore at a profit, that he is prepared to risk his own money in the venture, From what I have seen of Mr. Todd, I should say he is a good man of business, and naturally, if successful, he expects to get some return for the money he will have spent, and the risks he will have run. Well, gentlemen, I think you will agree with me that the terms we have arranged are not altogether unfavourable with the company. They are, briefly, these—that after and when he has succeeded in They are, briefly, these—that after and when he has succeeded in making the mine pay a dividend, we agree to give him not quite a half interest in the mine, the condition being that he will, without cost to us, put the mine on a dividend-paying basis. Now, as to further details of the scheme, we have tried to safeguard your interests as much as possible, and I think you will recognise, when you hear the agreement read, that we have fairly succeeded. You will find the agreement deals practically with three periods. First, there is a period of experiment, next the period of trial on a large scale, and, thirdly, the dividend-paying period. It is only natural that before Mr. Todd agreed to spend any considerable amount of money that he should have an opportunity to try his process on a small scale, and investigate the mine and its capabilities. We have, therefore, agreed to give him 12 months, during which to make what experiments he chooses. At the end of that time he must say whether he means to proceed with the agreement or to throw it all up. If the latter, then the agreement is null and void, but if he elects to proceed, then we go into the second period, during which he undertakes forthwith to construct chlorination works and to put the necessary machinery up for dealing with the concentrates They are, briefly, these—that after and when he has succeeded in but if he elects to proceed, then we go into the second period, during which he undertakes forthwith to construct chlorination works and to put the necessary machinery up for dealing with the concentrates of 40 tons of ore per day. He also undertakes to find all the working capital necessary. We, on our part, undertake that we will put matters into such a shape that if and when he is satisfied has that he has been able to make a dividence one-half of of the mine will belong to him. It has taken us a considerable amount of thought to see the best way of carrying this out, and we have come to the conclusion that the best way would be by forming a small subsidiary company of £100,000 capital issued in fully paid shares. This new company will practically take over from the present company the mine, the mining rights, the machinery, cottages, and ten acres of land, and for that we shall receive 51,000 fully paid shares, or more than one half of the company, giving us the control of it. The 49,000 remaining shares will be held for Mr. Todd, to be allotted and issued to him only if and when he has satisfied us that he has made a profit in any 12 months or less of £2000, available for dividends. These 49,000 shares will then be issued to him and not till then, and at that time the whole of the chlorination works will pass over to the company. Up to this period Mr. Todd undertakes to provide the whole of the necessary capital, and the only expenses we shall incur will be the small cost of the registration of the company. From the time the mine becomes a dividend paying concern we enter the third period, and as to that period, we have made certain conditions which will allow Mr. Todd to advance more working capital should it be required. Having given you the very rough outlines of the agreement, I will ask the solicitor to the company to read it in detail. It will then be for you to decide whether the agreement shall be confirmed or not. We are anxious that you should have all the information we have ourselves, and we fu

company. (Applause.)
The SOLICITOR to the company then read the agreement in full. A SHAREHOLDER: How many acres of freehold land have we The CHAIRMAN A little over 1000 acres

The CHAIRMAN: A little over 1000 acres—perhaps 1100. I will now move: "That the proposed agreement with Mr. Todd, which has been read to the meeting, and is identified by the signature of the Chairman, be, and the same is hereby, approved, and the directors are requested to affix the seal of the company thereto, and to take all the necessary steps for the purpose of carrying the same

Mr. BOYLE seconded the motion, pointing out that, while the shareholders were not asked to put their hands at all into their pockets, they were to profit by any favourable results that might

A SHARHHOLDER took it that the company would retain its 1000 acres in possession, while Mr. Todd would have mineral rights over eres and the additional 10 acres around the mine

The CHAIRMAN: That is perfectly right.

The motion was then put and carried unanimously.

Mr. HOLLAND, the largest shareholder in the company, said he thought it was only proper for him to express his great acknowledgment to the Chairman and directors for the time and attention they had given to the most important matters which had been before the meeting. It would, he thought, lead to a very great change for the better in the fortunes of the company. During the last few weeks he had had several interviews with Mr. Todd, who was a gentleman of very great experience, not only in mining, but also

with machinery. He said he had been engaged in mining for some time in America with a gentleman now managing the El Calle o Mines in Venezuela. From all he could ascertain there could le little doubt that Mr. Todd was a man of deep and wide practical knowledge, who would be sure to give the process a thorough tris. With this in mind it was gratifying to know that Mr. Todd was very sanguine as to the results of his experiment. He moved a hearty vote of thanks to the Chairman and directors.

Mr. TORER seconded the resolution, which was carried by accle-mation.

The CHAIRMAN having briefly acknowledged the compliment, the proceedings terminated.

WHEAL GRENVILLE.

Dividend of 5s. per share -Presentation to Mr. R. W. Goold.

Dividend of 5s. per share—Fresentation to Mr. R. W. Goold.

A 12-week meeting of shareholders in Wheal Grenville was held on the mine on Wednesday, Mr. R. W. Goold presiding.
The accounts showed:—Labour costs, £4679; merchants' bills, £2810; lords' dues £483, and other items making the total expenditure £9050. On the other side, £24 tons 7 cwts. 1 qr. 4 lbs. of black tin (including 15 tons in stock at the close of the previous quarter) had realised £10,837, leaving a profit of £1847, and increasing the balance in favour of the mine to £2108.

The CHARIMAN, in moving the adoption of the accounts, said that since the commencement of 1893 there was a drop of £10; in the second quarter, of £5; the third quarter, of £4; and in the first quarter for the present year there was a drop of £0. The meaning of this was that they had been gesting during the past quarter, for black tin, £15 s. a ton less than they would have had if the price had remained the same as 15 months ago. If they had had that £15 extra per ton they would have received for their tin £14,961, instead of £10,837, and that would have meant a dividend, coupled with the £200 they brought forward, of at least £1 per share. He was sorry they were not in a position to ask the shareholders to delare that amount. This was the dark side of their present picture. His own impression was, that the price had about reached its lowest stage, He had always boid them that Wheal Grenville was a splendid property, and he had always been proud of his connection with it. (Hear, hear.) They had achieved, a great success in Wheal Grenville. If the mine had been in the position she was four years ago if they had neglected to do what, as reasonable men, they had to do, they would have had a very different picture to put before the shareholders. But a greater success still was before the mine, and he was alve to point to the fact that the circumstances justified him in saying that, however great the success they had achieved, if they lived two see it in a few years more it woul

The CHAIRMAN proposed a dividend of 5s, a share.

Mr. Bellingham seconded, and this was also agreed to.
The CHAIRMAN proposed a vote of thanks to the manager, purser,

The CHAIBMAN proposed a vote of thanks to the manager, purser, and agents.

Mr. Bollitho, M.P., in seconding, said be had always regarded Captain Bishop as one of the most practical mine agents in the county, especially in regard to the adaptation of all improvements appertaining to mechanical appliances. (Applause.)

Captain Bishop, in acknowledging the compliment, said he had now been on the mine for five years, and he must say that he never had such an extensive idea of Grenville and her bright prospects as to-day. (Applause). He never saw the bunch of tin near Goold's shaft so rich as it was that day, and that was eminently encouraging when it was remembered that the last assay from the stuff there ran to 9½ per cent.—equal to 2 cwts, of tin to the ton of stuff.

At the conclusion of the business of the meeting, Mr. T. B. BOLITHO, M.P., said he had been requested to perform a duty, which he thought would give pleasure to all concerned. He had to ask the Chairman to receive an address indicative of their recognition of the labour and energy, the courage, ability, and straightforwardness which had characterised him since he had been Chairman of that mine. (Hear, hear.) By his bold and energetic action Mr. Goold had, he thought, saved that mine from what otherwise might have been a calamity. Mr. Goold had, to a certain extent, reaped his reward. (Hear, hear.) By the purchase of costly and saitable machinery, and by sinking the mine with all possible speed, they had already reached tangible material profits—and, but for the fact that the price of tin was horribly depressed—their fortunes, compartively speaking, might have been made. (Hear, hear.) But M'. Goold had done more than that. He had infused more hope into the neighbourhood. (Applause.) He (Mr. Bolitho) thought that the course of action pursued in that mine had revealed the fact that there was hope for the future in connection with the other mines. Only he would venture to impress on those neighbouring mines to take a leaf out of the book that had been mines to take a leaf out of the book that had been so well written there. In these times it was not easy to make calls, but it was far better to undergo some hardship than to go on and on with a tinkering policy and doing things by halves. (Hear, hear.) It would, he thought, be exceedingly wise if people in that district would recognise the fact that water troubles were very grevious troubles, and ought to be looked upon from a broad and comprehensive regime of wice, but there expect to be a system of vive and sive point of view; but there ought to be a system of give and take; that people should not entirely rely upon the efficiency of their own appliances, but that mining men should meet and discuss matters. (Applause.) He would like to see a basi their own appliances, but that mining men should meet and discuss matters. (Applause.) He would like to see a basifixed, whereby the cost of draining the water over a large area migh be adopted by a number of mines. (Hear, hear.) Of course he wished they had a better price for tis. The present low price was first of all due to the general depression in trade, caused by a variety of circumstances, And then they had to deal with the silver question. They knew, unfortunately, tin was produced in overwhelm ing quantities in the Straits at an alarmingly low cost, and he did not see any sign of a falling off from that source. Then they had had the actions of those amorphous animals the "bear," who were never loath to kick a man when he was down. (Laughter.) Probably, however, some morning they would be gratified by hearing from New York that the tin market was flying. (Hear, hear.) Shareholders in Wheal Grenville desired her prosperity, not only for their

pockets' sake, but from a desire that the Cuairman might know that he had been to the neighbourhood a distinct benefactor, and great manufer for good. (Applause.) The address, which was bound in handsome morooco case, was as follows:—

Address presented to Mr. R. W. Goold, Chairman of Wheal Granville Mining Company, August 1,1894.

The shareholders in the Wheal Granville Mining Company desire to appress their grateful acknowledgments of the valuable services readered by year during the many years you have occupied the responsible position of Chairman of this company, and more especially would they recognize the wise and energetic policy which, under your guidanes, has resulted in the development of the sattern section of the mine, and ensured to the company what promises to be long and continued prosperity. The advantage they derive from this important extension of operations is undoubtedly very considerable, but beyong this, the influence of such successful policy very considerable, but beyong this, the influence of such successful policy cannot fail to stimulate the mining industry in this immediate neighbourhood, and at a period loo, when such stimulate the mining industry has been most gratifying, as showing that Cornish mining as an invastment is not unworthy of the attention of capitalists outside the would, who, they courself, may be rewarded by shouldnat success. They would not forget another and insportant branch of the community benefited by your wise policy—the Cornish miner—as well as the many others deeply interested in the success of our mines, and deriving therefrom, in a great measure, their support and sustenance, and on their behalf also we thank you, and pray that you may live long to enjoy the reward and fruit of your valuable services to Cornish mining.

of your valuable services to Cornish mining.

Mr. Bolitho stated that Mr. J. B. Fortescue, the lord of the mine, and Mr. M. H. Williams had written regretting inability to be present.

Mr. F. HARVEY seconded the motion that the address be presented, and said he fully endorsed all Mr. Bolitho had said.

Mr. LANE supported. He said that when Mr. Goold first came into the county he was regarded by Cornishmen as an outsider, but they had now learned to admire him for his energy and ability. At one of their meetings it was resolved that Mr. Goold should be presented with £250, but the offer was declined by Mr. Goold. (Applance.)

plause.)

The motion was unanimously carried.

Mr. GOOLD, in reply, said they could not have given him anything more congenial to his wishes and taste. On one occasion the share-holders at a meeting in London insisted upon the committee accepting money, but he was determined not to use it, and sent it for distribution among the miners. (Applause.) He saincerely thanked them for their kindness in presenting him with that address. He would always prize it very highly. (Applause.)

BLUE HILLS.

Call of 3s. per share.

A four months' meeting of shareholders in Blue Hills was held at St. Agnes on July 27th, the Purser (Mr. W. Pike) in the chair.

The accounts showed labour costs, £1346; merchants' bills to end of June, £327; bank charges, £46; royalty, £25; total debits, £1745. On the other side 26 tons 3 cwts. of tip, £1061; extra carriage, £13; leaving loss on the 16 weeks' working of £670. They had bought the plant at East Blue Hills for £146. The total balance against the mine was £1177.

the plant at East Blue Hills for £146. The total balance against the mine was £1177.

The CHAIRMAN remarked that the costs were practically the same as last time, but while then they had only 12 tons of tin they had this time returned 26 tons. Only during the last four weeks had they had what they considered a fair average month's tin—that was 10 tons. Owing to the delay and insufficiency of burning accommodation they had not been able to return so much by about one ton as they otherwise would have done had everything been in order. He hoped to be able to meet them next time with a very different aspect of affairs. (Hear, hear.)

Captain JOSEPH RICHARDS, the manager, said that since the last meeting the engine shaft had been sunk 10 feet, after which they commenced driving a crosscut north to intersect the Pink and Straggler lodes. At a distance of 4 fathoms from the shaft they intersected the Pink lode, and had since driven east 7 fathoms on it. At first it was poor, but the last 2 fathoms had very much improved, two parcels of tin assaying 35 and 40 lbs. respectively, and the indications were that it would further improve. The crosscut was continued, and was now 10 fathoms north of the Pink lode, and they were expecting to cut into the Straggler at any time. In the 80 east they met with the run of tin for which they had been driving, and at the same point made a communication between the end and the 66. Although the 80 end was at present only worth about £6 per fathom, he was glad to say that they had passed through some very rich the ground, varying in value from £15 to £75 per fathom, the lode also containing a considerable quantity of arsenic. The stopes in the back of the 80 were worth £30 per fathom. At the surface they had benit about 280 feet of flues to save as much alime tin as possible. He thought that the prospects were brighter than for some time. He suggested the sinking of Penhall's shaft, and the driving under Penhall's sett.

The CHAIRMAN proposed a call of 3s. a share.

Mr. J. C. DAUBUZ secon

The CHAIRMAN proposed a call of 3s, a share. Mr. J. C. DAUBUZ seconded, Carried,

WEST FRANCES.

Call of 3s. 6d. per share.

A four months' meeting of shareholders in West Frances was held on the mine on July 26, the Purser (Mr. Walter Pike, J.P.)

presiding. presiding.
The statement of accounts showed that the labour costs had been £4295; merchants' bills, £1955; Camborne and Illogan rates, £67; bank charges, £16; lords' dues, 1-24th £217 (less £130 rebate for new shaft); net dues; £87; total costs, £6421. On the other side 130 tons 5 cwts. of tin have been sold for £5230; extra carriage, £18; discounts on merchants' bills, £13; leaving a loss on the four months of £1158. There was a total balance against the adventages of £1210.

turers of £1310.

Captain JOSIAH THOMAS, the manager, remarked that the price of tin was extremely low; when it would improve it was difficult for any one to say. He had given up prophesying as to the price of tin for many years. It might be interesting to the shareholders, however, to know what the price had been for the last quarter of a century, and in looking over the books at Dolcoath the other day, he had taken out the figures and found that the average price for the last 25 years had been £57 16s, per ton. The variations had been very great. In May, 1872, they sold tin for £96 17s, 6d, a ton, and in October, 1882, for £33 2s. 6d., while in March, 1898, it was sold for £33 18. The state of th These were very violent fluctuations, and, looked at from for £92 15s. These were very violent fluctuations, and, looked at from this point of view, it did not seem unreasonable to hope that they might at no very distant date have something like the average price. If they had only had that average price that quarter they would have made a profit of about £1500, but the price of tin was a matter over which they had no control. They were opening on a very promising looking lode at the 174 close to Bailey's shaft, which was 60 fathoms at least abort of the good tin ground they were opening up westward in South Frances, underneath their mine, on which South Frances people had risen on a good course of tin. They were not able until they brought down the perpendicular shaft from the 77 to the 174 to explore the flat lode in the east part of the mine at all; but now they would be in a position to drive the 174 mine at all; but now they would be in a position to drive the 174 and also to sink Bailey's shaft under the 174 east, and also to sink Bailey's shaft under the 174. From that point they had something like 200 fathoms to sink on the line of the lode down to South like 300 fathoms to sink on the line of the lode down to South Frances boundary, and if that part of the sett did not contain a large quantity of fin they would be very much disappointed. He thought they ought very soon to be sinking Bailey's engine shaft under the 174. He believed the part of the lode close to the shaft was the south part of the flat lode, which was heaved up by the little copper lode just as it was in West Basset many years ago. They could also, if thought best, prove the flat lode below the 174 by driving the 235 east from the western shaft, so that altogether they had a long

There were hardly any mines in Cornwall that can do anything with times 1240 a ton; of nourse, most of them were looking forward with ope for a better price for tin, for if they were sure it was not going to rise above £40 it was a gloomy output for the county, except the few mines that are exceedingly rich.

Replying to Mr. W. H. Rule, Captain Thomas said he did not think they could

Replying to Mr. W. H. RULE, Captain THOMAS said he did not think they could reduce the costs except by stopping the boring machine. The question of reducing the agency costs was a matter for the shareholders. They had not reduced the wages in the mine except in the case of tributers where the price of tin had affected it. If they reduced labour costs the men would go abroad. The average of the stuff was 48 lbs. to the ton.

Mr. M. H. Williams moved the adoption of the accounts.

Mr. W. H. RULE, in seconding, commented on the accounts, and compared the result with the working of a similar period at Killifreth. He expressed the opinion that a mine manager should devote the whole of his time to the management of one mine,—Carried.

The CHAIRMAN proposed a call of 3s, 6d. per share. Mr. J. MAYNE seconded.

Carried.

Captain Josiah Thomas subsequently pointed out that the circumstances at Killifreth and West Frances were entirely different, and if Mr. Rule was going in for a comparison he should select one of the mines in the flat lode.

There was some discussion on the suggestion to continue the sinking of the shaft, and it was unanimously decided, on the motion of Mr. M. H. WILLIAMS, seconded by Mr. TUCKER, to carry out the suggestion, it having been pointed out that the cost would not probably exceed £50 a month.

SOUTH CROFTY.

Call of 5s. per share.

A 16-weekly meeting of shareholders in South Crofty was held the mine on Thursday, when the Purser (Mr. H. J. Lean) occupied the chair.

accounts showed :- Labour costs, £3979; merchants' bills £1714; and the total expenses were £5694. On the other hand 101 tons 10 cwts. 1 qr. of tin had realised £4317 7s. 3d.; arsenic, £40; extra carriage, £17; which, with other items, made the total receipts, £4375, and there was, therefore, a loss of £1319, which increased the balance against the mine to £1696.

which increased the balance against the mine to £1696.
Captain JoSIAH THOMAS, in supplementing the agents' report, said the mine was opening fairly well. Below the 260 they were opening some productive ground, but the bottom end, the 272, had not yet reached the best of the tin ground they had in the 260. There was more or less fairly good lode from the engine shaft gone below the 260 for between 70 and 80 fathoms, and only a well a greatly the home worked area. Thus it shaded only a small quantity had been worked away. They intended trying the ground below the 260 shortly by driving a crosscut from the 272, which he did not think would be more than 8 or 4 from the 272, which he did not think would be more than 8 or 4 fathoms in length. What the ground would be like he could not say, but it was looking very promising below the 260. In the western part they had driven through a large lode, which was very productive in some parts considering the softness of the ground in the 245. The 260 had just reached the end of that ground, and the 245 was about 125 fathoms ahead of the 260. They intended going on rapidly with the boring machine, and they reasonably expected to open up productive ground on the middle lode in the western part. Above the 245 on the middle lode for 150 fathoms there was nothing done at all. It was all standing whole. They pected to open up productive ground on the middle lode for 150 fathoms there was nothing done at all. It was all standing whole. They did not propose, at the present price of tin, to drive any above the 260, but eventually to drive back west in the unexplored ground. He understood that on their south lode—which they worked on a good many years ago, and from which they raised a good deal of copper—in Tincroft, within a few fathoms of South Crofty boundary, they were raising large quantities of arsenic and copper, and that it was also pretty good for tin. They intended seeing whether any of that came back into their sett. At present they were doing nothing on that lode. The arsenic from the south lode was very good arsenic, and arsenic was now making a very good price. Their loss back into their sett. At present they were doing nothing on that lode. The arsenic from the south lode was very good arsenic, and arsenic was now making a very good price. Their average produce was about 50 pounds to the ton. Their loss was nearly £600 less than in the previous quarter, although the price of tin was about 50s. per ton less than in the previous four months, and nearly £18 per ton less than in the average for the last 25 years. (Hear, hear.)

After several questions by Mr. Rulle had been answered,

A call of 5s per share was agreed upon on the motion of Mr.

A call of 5s. per share was agreed upon, on the motion of Mr. Pearce, C.C., seconded by Mr. Jeffer.

WELFORD AND SONS, LIMITED.

Dividends fully maintained.—A successful year's working.

The eighth annual general meeting of Welford and Sons (Limited) was held on Thursday at the Cannon-street Hotel, the chair being occupied by Mr. JOHN WELFORD.

The SECRETARY (Mr. H. Trotman) read the notice convening the

meeting.

The CHAIRMAN said: Ladies and gentlemen, you have all had the balance sheet and the report in your hands for some days, and have had an opportunity of studying it. You will, therefore, I presume, take it as read. I am very pleased to meet you again, and to be able to tell you that we maintain the usual dividend, although during the year we have had a great many difficulties to contend with, which must, I suppose, always be the case with agricultural companies, where there is a drought. However, we have been able to pull through it, as you know. When last year I met you I said I hoped we should be able to get a good price for our goods, but owing to want of cohesion in the trade and other difficulties we have not guite been able to do all that we expected in that way. It is owing to want of cohesion in the trade and other difficulties we have not quite been able to do all that we expected in that way. It is an unfortunate thing that the public do not seem to be able to discriminate between high quality milk and that sold at a lower price. Why it should be so is difficult to say, but we well know it to be the case. We should like to ask our shareholders to assist us in supporting their directors' efforts for the extension of their custom. It is always an advantage for our shareholders to speak of our milk before their friends, for the recommendation of a customer is always much that of any two other persons. By their infigures we shall before their friends, for the recommendation of a customer is always worth that of any two other persons. By their influence we shall then have secured an additional customer, and I know we shall serve him well once we have got hold of him. There has been latterly a wide development in the extent of our business, and, taking it altogether, I think we may congratulate curselves on our year's working. (Hear, hear.) You have had the balance sheet before you for some days, and I have no doubt you have studied the items. Without detaining you further, then, I have great pleasure in moving the adoption of the report and balance sheet, and I shall be pleased to answer any questions you may like to put. (Applause.)

to answer any questions you may like to put. (Applause.)
Mr. JOHN JELLEY seconded the motion.
Mr. WILLS asked how the £8500 mentioned as a reserve fund was invested. He also wished to know if there was any depreciation on

The CHAIRMAN replied that the plant was any depreciation on that the reserve fund was invested in the business. The plant and premises of the company were always kept at a very high state of

Mr. Hayles asked why the amount reckoned for buildings, pre-mises, and other assets had been increased by £784.

The CHAIRM as replied that the increase was due to the fact that they had purchased certain premises upon which, in consequence, there would be no rent to pay next year. The shareholders might rest assured that the valuations were calculated with scrupulous fair-

The motion for the adoption of the report and accounts was then

The motion for the anoption of the report and carried unanimously.

The CHAIRMAN then moved the formal declaration of a dividend of 6 per cent, for the half-year, making 10 per cent, for the whole year, which was seconded by Mr. R. H. JACKSON, and carried

The CHAIRMAN then moved the re-election of Mr. Baten eat upon the board, saying that he had acted as director since the commencement of the company, and had performed them very nac-

Mr. B. H. JACKSON seconded the motion, referring in high terms

steman's *ervices. otion was unanimously adopted.

Major READ proposed, and Mr. Liddall seconded, a motion re-pointing Mesers. Welton, Jones, and Co. as auditors to the com-any, which was unanimously carried.

Mr. BATEMAN briefly returned thanks for his re-election, saying

it had been his privilege to be connected with the company since its formation, and as in the past so in the future he would endeavour

formation, and as in the past so in the future he would endeavour to further the interests of the company.

Mr. Wills proposed a hearty vote of thanks to the Chairman for his past services to the company, saying that he was eminently a man of action, thoroughly acquainted with the trade carried on by the company. Perhaps, too, in his reply, he would add something as to the future prospects of the company, and say whether it was contemplated enlarging the borders of the business at all,

Mr. GAYSFORD seconded the motion, which was carried by accla-

Mr. GAYSFORD seconded the motion, which was carried by accla-

The CHAIRMAN cordially thanked the meeting for their vote of thanks, and said that as to the future it was very difficult to pro-phesy with any regard to fact. If the directors saw any opportunity of acquiring any additional business on advantageous terms they would favourably consider it. Beyond that he could not go, for it ould certainly be highly dangerous for them to be at all precipit-ble. (Hear, hear, and applause.)
The proceedings then terminated,

The Australian Mining Company.—The 49th annual general meeting of this company was held on Monday, at the Guildhall Tavern.—Mr. Henry Collier (the Chairman), in the absence, through illness, of Mr. U. P. Harris (the secretary), read the notice convening the meeting, and also the minutes of the last annual general meeting, which were confirmed. The report and statement of accounts were taken as read.—The Chairman, in moving their adoption, said he did not think there was anything to tell the shareholders beyond what was in the report. Any individual or company who had been able to maintain their prosperity as they had, despite the financial and labour crises during the past year, had every reason to congratulate tremselves. It was source of gratification that people on the spot were ready to work on their property. The present manager was making no attempt at present to extract the gold held in combination with other metals, but simply raised, crushed, and washed the ore for the free gold. The raising of this ore cost about 4s. 6d. per ton, and the crushing and other expenses about as much more, so that if the percentage of free gold continued there was a small margin of profit. The royalty had been reduced from 1 in 20 to 1 in 40.—Mr. Walter J. C. Cutbill seconded the adoption of the report and accounts, the motion being carried unanimously.—Messrs. George Palmer and Walter J. C. Cutbill were enanimously re-elected directors.—The auditors, Massrs. Hugh Mackay Gordon, Arthur Edward Mylner, and Thomas Smith were re-elected auditors, and their remuneration for the past year was fixed at 30 guiness.—The Chairmas then moved a hearty vote of thanks to the company's colonial agent for his valuable services. His exertions on their behalf, the Chairman said, were deserving of the shareholders of the Holcombe Valley Company of the shareholders of the Holcombe Valley remeral masting of the shareholders of the Holcombe Valley.

HOLCOMBE VALLEY COMPANY (LIMITED).—An extraordinary general meeting of the shareholders of the Holcombe Valley Company (Limited) was held yesterday at Cannon-street Hotel, for the purpose of considering and, if thought advisable, confirming resolutions increasing the capital of the company.—Mr. Meates, who presided, in moving the resolutions, said that the more recent advices received from the manager at the mine were of a highly satisfactory nature. It was true that he had not with some disappointments but, on the other hand, some of met with some disappointments, but, on the other hand, some of the ground had been more than double as rich as they had the ground had been more than double as rich as they had ventured to hope. This ground had averaged 75 cents, or over 3s. a cubic yard, which would enable them to make a profit of something like half-a-crown a yard. Some delay had been occasioned by the railway strike in consequence of some machinery not being so rapidly delivered from the manufacturers. There was every reason, however, to believe that the strike would soon end, and perhaps even now the manager would be able to get rapidly to work again.—Colonel Carey seconded the confirmation of the resolutions.—A Shareholder enquired whether the details of the accounts had arrived from the other side.—The Chairman replied in the affirmative, and said that the requirements of the auditors had been fully met.—The confirmation of the resolutions was then put and The confirmation of the resolutions was then put and carried unanimously.

Wentworth Gold Mining Company.—The annual general meeting of the Wentworth Gold Mining and Indian Estates Company (Limited) was held, on Thursday, at the offices, 34 Nicholas-lane, E.C. Mr. James Labouchere presided, and, in moving the adoption of the report, expressed his regret that the year's working was not of a satisfactory nature. The hopes of the board had been based on the anticipation that the price of singless back would not go below that of last year, but unforboard had been based on the anticipation that the price of cinchona bark would not go below that of last year, but, unfortunately, the price had been reduced to about \(\frac{1}{2} \)d. per unit. The revenue account showed a small loss for the year of £48, and that, added to the debit balance of 1893, brought the total debit up to £9505. They had at present a balance in hand of £1300. Mr. Todhunter seconded the motion, saying that it was impossible for the company to succeed with the present price of cinchona, and the only course before them was to wind up. Mr. Shaw suggested that means out of their difficulties might be found by smalgamating with another company in India. Some discussion having taken place as to the best course to be taken for the future, the report was adopted, and a committee was formed for the purpose of carrying into effect the proposed amalgamation.

amalgamation.

THE ROYAL COLLEGE OF SCIENCE AND ROYAL SCHOOL OF MINES.—The following is a list of the Royal scholarships and prizes which have jest been awarded:—Royal Scholarships: First year's Royal Scholarships: Robert Sowter, Arthur O. Allen, Henry T. Davidge, John B. Chambers. Second year's Royal Scholarships: Robert W. Forsyth, William Longshaw.— Medals and prizes: "Edward Forbus" medal and prize of books for biology, George S. West; "Murchison" prize of books for geology, John J. Green, Francis C. Harrison; "Merchison Medal," not awarded; "Tyndall" prize of books for physics, Part I., Robert Sowter; "De la Bache" medal for mining, John Ball; "Bessemer" medal and prize of books for metallurgy, Charles H. Sidebotham; "Frank Hatton" prize of books for chemistry, John Thomas. Prizes of books given by the Department of Science and Art:—Mechanics: Harold R. Cullen, Astonomical Physics: Francis R. Penn, Robert Sowter. Practical Chemistry: Bouchier M. C. Marshall, Mining: Jehn Ball, Principles of Agriculture: William Wilson,

NOTES ON THE PHILIPPINE ISLANDS.

By FRANK KARUTH, F.R.G.S.

II.

HE Philippine Islands are under the supreme charge of a Governor-General, who resides in Manila, a town of con-siderably more than 300,000 inhabitants, among them a siderably more than 300,000 inhabitants, among them a goodly number of British men of business, whose well-appointed club is the centre of foreign social intercourse. In Madrid the interests of the Colony are specially entrusted to a Council of State for the Philippines, which acts as an advisory body to the Minister for the Colonies. There is also a Council of State in Manila, which has a voice in questions affecting the material progress of the Islands, which are divided into provinces, each under its Governor. The provinces are sub-divided into divided divided into divided into divided divided progress of the Islands, which are divided into provinces, each under its Governor. The provinces are sub-divided into districts, and these again into communes or parishes. The Gobernadocillo (little governor) stands on the lowest rung of the official ladder, being the elected head of a commune, and wearing as the symbol of office a stiff, mushroom-shaped hat, resplendent with solid ornaments of silver bullion. In these communes or parishes the cura (priest), especially if he be a Spaniard, as is generally the case in the more important parishes, exercises supreme power. He is the father and parishes, exercises supreme power. He is the father and councillor of his people, and helps them not only with spiritual advice, but also furthers their material interests. Many of these Spanish curas have done much good work in the way of making roads and bridges, and the building of churches, acting frequently as their own engineers and architects with far less unsightly results than one might expect from persons who are supposed to be more conversant with breviary and rosary, than with rule and compasses.

The Spanish priests, friars of strict orders, come to the Islands for aye and good, and, with scarcely any exception, do their duties faithfully and devotedly. Friests of native extraction do not quite come up to the high standard of their Spanish confratres. They cannot all live up to the severity of monastic rules. These native curas, moreover, suffer under the proverbial disadvantage which affects the prophet in his own country, and disadvantage which anects the propert in his own country, and lacking the strength of mind and tenacity of vow of the Spanish priests, sometimes seek consolation in diversions of not quite a clerical or monastic character.

In their colonies the Spaniards practice what we only preach—

that is to say, they uphold perfect equality of races, not only before the law, but in a general way. Thus it is that men and women of mixed blood move in the best colonial society, and dignitaries with a decidedly Chinese or Tagal cast of countenance are adorned with stars and broad ribbons of high Spanish orders, and their and are given the profess of Evadlance. There is a are adorned with stars and broad ribbons of high Spanish orders, and claim and are given the prefix of Excellency. There is a liberal admixture of Chinese blood to be found among the official and financial aristocracy of the Islands. The engrafting of the steadfastness of purpose and the commercial instincts, which

steadfastness of purpose and the commercial instincts, which characterise the celestial, on the receptive native race, has been productive of a plutocracy with distinctly Mongolian features, devout catholics, but not less devout admirers of Mammon.

On the whole the Philippine natives find and take life easy. Their requirements are few. The sum of £5 will provide a native household with a dwelling of its own and ample furniture. Under a genial climate; on a soil lavishly grateful for the slightest tending; by waters teeming with fish, they know naught of hunger, and have much time left for amusements—such as dancing and public rejoicings on the smallest occasion, music, for ing and public rejoicings on the smallest occasion, music, for which they have a natural talent, so that there is scarcely a commune without a fairly trained brass band—and gambling! Cockfighting is the national sport, and no mean source of revenue to the authorities. Almost every native owns a fighting fowl, which is as dear to him as her lapdog to a European lady. He carries it about with him, and bets his bottom dollar on its percarries it about with him, and bets his bottom donar on its performance in the arena. Thus the native is an intermittent rather than a steady worker, and his delight in feasts and holy days, and his content, which passes him off as rich in his own mind with ten dellars in his purse, make him as a labourer, decile as he is and willing to please, a source of frequent annoyance to his

employers.
After this slight sketch of the country, its institutions and inhabitants, a glimpse may now be taken of mining matters as they were, and as they may be in the future. Proceeding in the order of seniority, also in that of widest distribution, gold mining

will take the first place.

There is no doubt that mining for the precious metal was practised in the Islands long before the advent of the Spaniards. In fact, it may be that the alluvial deposits, accessible to the Chinese and Malay traders, who had intercourse with the Islands Ohinese and Malay traders, who had intercourse with the Islands long before they were known to Europeans, have been to a great extent worked over and over again. The tools which the natives use—a washing board and a wooden bowl—are of great antiquity, and form a prominent feature in the household utensils of all native villages in the auriferous regions. It is also probable that the natives extracted the gold from its matrix, for the presence of gold in the quartz cannot have been ignored by them. Boulders and fragments of quartz with visible gold occur in many alluvial deposits in the Islands, and it is not likely that the natives would have thrown them aside without endeavouring many alluvial deposits in the Islands, and it is not likely that the natives would have thrown them aside without endeavouring to extract the gold. This they probably did, as they do it even now, by pulverising the quartz by hand, and washing it like they wash the auriferous gravel and sand. The only improvement on this rude process was the introduction by the Spaniards in some districts of the Mexican "arrastra," a block of rock moved by buffalo power like a millstone on a nether block. The charge of an arrastra is about 250 lbs. Float gold and auriferous pyrites are lost in the process. It s doubtful whether to this day the natives are aware of the auriferous character of the pyrites, which almost always accompanies the auriferous quartz, sometimes in not inconsiderable proportions.

ometimes in not inconsiderable proportions.

Thus the production of gold by washing alluvial deposits and pounded quarts is an old time industry in the Philippines, followed to these days by nearly all in the auriferous districts in a desultory way, as an occanional occupation, when the sowing is done, or the rice harvest gathered; when the overdue capitation tax, or an approaching holiday, with its cockfights, makes the possession of a few dollars in cash more than usually desirable.

Mr. James Hilton, M.E., who visited Luzon in 1890-1, and Mr. George Simpson, a veteran Ballarat gold mining captain, who arrived there in 1892, in their reports give some interesting dearrived there in 1892, in their reports give some interesting details regarding native mining methods, some of which are worth mentioning. Mr. Hilton says:—"The occurrence of valuable mineral deposits in the Philippine Islands is well known, and it might be supposed that the colonists would endeavour to profit by the wealth which Nature has placed at their disposal, the more so as the mining laws of the land are liberal, the taxes the reverse of concrous, and the conditions generally favourable. Nevertheless, as a matter of fact, mining, as the skilfully and intelligently conducted industry, such as we know it elsewhere, does not exist in the Philippine Islands. Valuable coal fields are either practically untouched, or are worked in a haphazard fashion for an annual output of a few thousand tons, when the judicious employment of a few thousand pounds would, in a few years,

not only render the Islands independent of imported coal, but would also create a remnnerative export trade, for the local coal is very good, and almost smokeless steam coal. There are not any ores mined in the Islands. A few spasmodic efforts came to an end before they had scarcely begun. What the ignorance and want of skill of the men who engage in mining are like I can best illustrate by facts which have come under my personal knowledge. I was taken to see a rein of gold eventy personal knowledge. I was taken to see a vein of gold quartz, but found the shaft full of water, and ascertained the only means of draining it was by a posse of 17 natives, who, forming a chain, handed palm-leaf buckets from water level to surface. The only means of crushing the gold quartz was a ponderous stone moved by buffalces. Amalgamation is not known. The wash stuff is washed in wooden bowls, and it takes at least 400 of them to deal with a ton."

Mr. Hilton adds that he was requested to inspect a lode of platinum, but on inspecting it found it to be a lode of galena with a little gold and silver, but without a trace of platinum.

with a little gold and silver, but without a trace of platinum. The mistake, however, was probably due, not to the ignorance of the natives as to the composition of the lode in question, as Mr. Hilton supposed, but to that gentleman's limited knowledge of the vernacular, platina being the local term for galena.

Mr. Simpson remarks that "gold washing has been carried on from time immemorial, and a few native indians can always be found at work in various parts of the Islands. A few natives also crush the quartz by a rude machine worked by buffaloes." Describing the working of a mine at Mambulao, in the Island of Inizon. Mr. Simpson observes. "the Indian miners mode of of Luzon, Mr. Simpson observes, "the Indian miners mode of operations was based on sound engineering principles, in so far as draining is concerned, as shown by their putting in the, to them, very costly adit from the creek at the foot of the hills on which the mines are situated. They bailed the water out with small buckets, holding from 2 to 2½ gallons each, and by literally filling the various shafts with men, who percent the hyperter from filling the various shafts with men, who passed the buckets from one to another, they managed without either powder or dyna-

mite, or any other explosive, to realise some thousands of ounces of gold. This is the barbarous method adopted."

A specimen of these buckets, made of roughly-plaited palm-leaves, is now before the writer of these notes. It is about 8 inches high and 8 inches wide, and almost cylindrical. When quite full it holds about 8 quarts. But it cannot arrive more than two-thirds full at the surface from the depth of 90 feet, at which it has been used within the last two years. There must be some substantial inducement to urge the naturally indolent natives substantial inducement to urge the naturally indolent natives to bestow so much labour on their mines, to forsake their alluvial grounds, where they can always earn a few reals a day without diving into the bowels of the earth in pursuit of auriferous quartz veins. The basket above described was used in the draining of some native shafts, the history of which is told in two officially attested documents, which probably figured in a local lawsuit. The originals are now in London, and they read their translated.

local lawsuit. The originals are now in London, and they read thus translated:—
(1.) "Don " " Mayor of " " " I certify that in the year " I discovered the mines in the district of " " and have extracted from the same in one year gold of the value of \$24,000, my share as proprietor being \$12,000.

In the same district four other shafts were sunk by other proprietors, who, according to public knowledge have extracted.

prietors, who, according to public knowledge, have extracted more than \$100,000 in the same year.

As we could not extract the water from the shafts after the

As we could not extract the water from the shafts after the first year of working, we suspended operations.

The manner of our work was as follows: We put labourers on the ladders every metre and a half. The water was carried in palm-leaf buckets holding about 6 litres, but when they arrived at the top they barely held 2 litres; after 48 hours the shaft was dry, then proceeded the labour of cleaning the shaft, and on the fifth or sixth day it was ready for extracting the auriferous quartz, and in that stage in about 40 hours, we extracted about \$5500 worth. \$500 worth.

\$500 worth.

This I declare under my signature in * * * on the 26th May * * * . This is certified by three witnesses, and by the rector of the parish under the Church seal."

(2) "Don * * * Captain of the town of * * , in the province of * * together with the principal and witnesses. This is to certify that Don * * * Mayor of * * discovered in the year * * a gold mine, the best of its class in the district of * * , which mine had to be abandoned on account of the want of machinery to extract the water from the same, also for the want of funds. This above-mentioned mine is the richest in this district, and from it has been extracted more than \$100.000 net by the primitive system of working it. Also the \$100,000 net by the primitive system of working it. Also the concessions named * * have been explored, and a quantity of gold extracted, which, according to public knowledge, amounted to more than \$60,000, and they are likewise to-day abandoned for want of the implements to draw the water from shafts where there is still a great quantity of auriferous

In order that this may be known wherever required, we significant in the district Court House of * * * 28th May.

Here follow 14 signatures.

Such groups of native shafts are by no means rare. Indeed, they abound in some districts, and are sometimes a source of danger to the unwary. The engineers of the Philippines Mineral Syndicate have examined scores of them, everywhere with the same result—that is to say, to find that they were abandoned, whenever hand bailing could no longer keep the water out. Their examination has led to some valuable discoveries—e.g., in the case of the mine, named A 1, by the late Mr. Simpson, where crushing will shortly be commenced.

FORTHCOMING MEETINGS.

"." We shall be obliged if Secretaries or other Officials of Mining. Railway and other Companies' will be good enough to advise us as early as possible of the date, time and place of their forthcoming meetings—whether statutory. sal, general or extraordinary, confirmatory or adjourned scribers and more particularly our country readers. Balance sheets, reports and other matter to be submitted fat such meetings should, where pessible, accompany the intimations of the meetings sent

| Name of Company, | Date. | Nature of Meeting. | Place, | Time. |
|--|----------------------------|---|--|-------------------------------------|
| English Crown Spelter Co Mysore West Co | Aug. 8 Aug. 8 Aug. 9 | General General General General General | Winchester Ho, Winchester Ho, Winchester Ho, Winchester Ho, Winchester Ho, | 2.0 p.m. 2.30 p.m. 12.30 p.m. |

ZEEHAN-MONTANA.—The board of directors have declared an interim dividend of 8d. per share on fully paid shares and proportionately on shares 12s. 6d. paid. Dividend warrants will be posted August 15.

CAPTAIN JOSIAH THOMAS, of Dolcoath, is said to have purchased from the trustees the china clay sett of Levalron, near St. Austell, which was for many years worked by Messrs. Nicholls and Co., whose estate is now in bankruptcy. Some members of Captain Thomas's family and other gentlemen are associated with him in the enterprise.

LATEST FROM THE MINES.

CABLEGRAMS AND TELEGRAMS.

SIA MINOR.—Production to July 14:—Lidjessy Mines 3115 tons crude ore crushed, yielding 216 tons rich silver

BALAGHAT MYSORE.—The directors have received a telegram from the mine giving the return of gold for the month of July as follows:—"410 tons of quartz produced 754 ounces of gold. Total production for the month 754 ounces of gold."
BAYLEYS REWARD.—The following cable, dated 31st July, has been received from Melbourne by this company's London's office:—"Week's run 700 ounces 80 tons. We have

London's office:—"Week's run 700 ounces 80 tons. We have struck in the main shaft at the bottom of the shaft the richest ere we have yet found at the lower level,"

BRITISH SOUTH AFRICA—Cable, August 1:—"On the Rezende reef an adit has been cut; the reef is 5 feet wide; there is visible gold, and the pannings show well."

CASSEL COLLIERY.—A cablegram gives the output for the month of July as 10 202 tons.

month of July as 10,920 tons.

DAY DAWN BLOCK AND WYNDHAM.—The directors have received the following cablegram from the general manager at Charters Towers:—"Have crushed 300 tons of quartz taken from No. 2 shaft and the No. 14 level west for a yield of 145 course of gold."

146 ounces of gold."

ELKHORN.—"Bullion produced in the mill for the week

ELKHORN.—"Bullion produced in the mill for the week ending 28th July, 6200 ounces. During the past week mill was shut down for repairing three days."

GUADALCAZAR QUICKSILVER.—The quantity of quick silver drawn off during the four weeks ending July 26, as cabled from the mines, amounts to 14,200 lbs.—189\frac{1}{3} flasks.

ISLE OF MAN.—The secretary sold 100 tons of this company's ore at £8 17s. 6d. per ton.

JAY HAWK AND LONE PINE CONSOLIDATED.—The directors have received the following telegram from the manager, viz.:—"Estimated return 6000 ounces. Buttery assay 30 ounces. Hoisting stopped two days by repairs to shaft. Expect to strike the vein in the 1600 level shortly."

KEMPINKOTE.—The directors have received a telegram from the mine, dated 1st August, as follows:—"Garland's east crosscut continued. Have cut a body of ore, assaying 6 to 10 dwts. per ton. Width of lode 11 feet. The width of the vein is not yet determined."

LAS CABESSES MANGANESE .- Production for the week ending July 28, six working days, 511 tons, or a daily average of

MARBELLA IRON ORE.—The directors have received the following telegram from the mines:—"Output of ore for July,

MOUNT MORGAN.-The directors have received the following telegram from the head office, Rockhampton:—"We pay £25,000 on August 2, being dividend of 6d. per share (free of

dividend tax) for the month of July. MOUNT MORGAN (Queensland).—The London Board have received the following cable from the head office:—"Linda crosscut has been driven upon the lode a distance of 28 feet; 15 assays have been made, giving an average of 5 ounces 3 dwts.

MOUNT ZEEHAN (Tasmania).—The following telegram has been received, dated Hobart 31st inst.:—"Have treated during past fortnight 400 tons of ore, yielding about 40 tons of concentrates, containing about 30 tons of lead and 2800 ounces of cilius."

MYSORE GOLD .- The directors have received the following telegram from the mines:—"The vein was intersected 780 north of Rowse's shaft July 19; at the point of intersection low grade cre; have driven north 9 feet. Lode opening up well, 4 feet wide, assaying 2 ounces 10 dwts."

MYSORE WEST AND MYSORE WYNAAD CONSOLI-

MYSORE WEST AND MYSORE WYNAAD CONSOLI-DATED.—Tank Block:—The following telegram has been received from the new mining manager, Mr. Percy Bosworth Smith, dated July 28:—"I have taken charge; the general appearance of the mine is most encouraging." ORITA —The directors have received the following cablegram from their superintendent relating to run No. 79:—"We have cleaned up £400, the profit on which is £200. We have recom-

menced washing."
PESTARENA UNITED.—Gold return for July, 817 ounces from 413 tons, an average of 1 ounce 19 dwts. 13½ grains per

ton.
QUEENSLAND SMELTING.—The manager cables:—"Am shipping bullion to the value of £12,200 per s.s. Dorunda."
SHEBA.—The directors have received the following cable-gram from the general manager for the month of July:—"3800 tons (2000 lbs.) of ore crushed, yield 3470 ounces; 5800 tons (2000 lbs.) of tailings treated, yield 3135 ounces; 136 tons (2000 lbs.)

concentrates, assay value, 1517 ounces; total, 8122 ounces." SILVER KING.—The following cable has been received from SILVER KING.—The following cable has been received from Mr. Edwards, manager at the company's mines:—"Silver mill working 27 days and nights during June. Crushed 2400 tons of ore, producing 29,000 ounces of silver. Shipped 31,000 ounces, expenses \$11,500. Mill closed July 1 in consequence of no fuel to be had (owing to the railway strike). Cleaned up on July 14 in readiness for the transfer of the property to the new company." SPITZKOP FARM.—Ten stamp mill worked 12½ days in June, produced 64 ounces gold, value £240.—Prospecting. A vein has been discovered in No. 5 cutting, about 2½ inches in thickness. The manager expects to be able to wire the result of hydraulic clean up next week.

TOLIMA.—The following cablegram has been received from

hydraulic clean up next week.

TOLIMA.—The following cablegram has been received from our mines: —"Estimated profit for July over £2500."

TWIN LAKES PLACERS.—The managing director reports that during the month of July 180,000 cubic yards of gravel were washed, and bullion was produced of the value of \$17,200, of which \$10,000 have been remitted by draft to London. UNITED IVY REEF during last month produced 182 ounces

The tailings yielded 58 ounces, making a total for the month of 240 ounce

240 onnees.
VICTORIA GOLD MINING ASSOCIATION.—The fortnightly crushing has been cabled as follows:—"300 tons crushed yielded 446 ounces gold."
WASSAU (Gold Coast).—The produce of the mine for the month of May last (referred to in our circular of 21st ult.), realised £1324 18s. 5d., being 340 ounces standard. The mill worked 21 days 17 hours and crushed 307 tons of ore, giving a yield of 1 ounce 2 dwts, standard per ton. Cablegrams have since been received advising the remittance for last month as 355 ounces bullion, and a yield of 1 ounce 3 dwts, per ton. All three ounces bullion, and a yield of 1 cance 3 dwts. per ton. All three shafts are being sunk, the Bishop shaft being down to the necesary doubt to again cross cut.
TRANSVAAL GOLD EXPLORATION AND LAND.—Ore

mined, 1550 tons; ore treated, 875 tons, yielding 1200 ounces; tailings treated, 725 tons, yielding 875 ounces. Total for July, 2075 ounces. The expenses will be published as soon as received

NIGEL.—Last month's crushing yielded 2391 ounces battery, 2117 ounces cyanide; total, 4508 ounces.

C. PASS AND SON, BRISTOL,

LEAD ASHES, SULPHATE OF LEAD, LEAD SLAGS, ANTIMONIAL LEAD, COPPER MATTE, TIN ASHES, &c. and DROSS or ORES containing

COPPER, LEAD, AND ANTIMONY.

HENRY WIGGIN & CO. (Limited), NICKEL AND COBALT REFINERS MAKERS OF BEST RED LEAD FOR FLINT GLASS MANUFACTURERS, BIRMINGHAM.

H. E. BANDELL, Frankfurt a. Main, Germany.

Representation as Agent of Foreign Houses and interests, and all siness of a similar nature. Imports and Exports on Commission. Ten years experience in Europe and Twelve years in America, Correspondence solicited.

PACIFIC MINING AGENCY AND TRUST COMPANY

A Corporation organised under the Laws of the State of California CAPITAL STOCK, £50,000.

BOARD. IRWIN C. STUMP (Chairman), Manager of the Estate of the late

U.S. Senator Hearst.

IRVING M. SCOTT, Manager Union Iron Works.

JACOB H. NEFF, President California Miners' Association,

P. N. LILIENTHAL, Manager Anglo-California Bank (Limited).

W. F. GOAD, Vice-President, Wells, Fargo, and Co.

D. M. BURNS, Capitalist.

R. C. CHAMBERS, Manager Ontario Mine, Utah.

WILLIAM C. RALSTON, Secretary (Secretary California Miners Association)

Association),

BANKERS—The ANGLO-CALIFORNIAN BANK (Limited).

HEAD OFFICE — MILLS BUILDING, SAN FRANCISCO, CAL.

THIS COMPANY sells Mines, Mining Claims, Ditch Properties, and Water Rights on COMMISSION, and will act as Agent and Broker for the Sale and Purchase of such Properties.

It is intended to conduct the Purchase and Sale of Mining Claims, Ditch Properties, and Water Rights on the same basis as a real estate

The Company is prohibited by its Articles of Incorporation from buying or selling on its own behalf, or except upon commission, or as agent or factor for others.

as agent or factor for others.

The buyer pays no fees whatever, and there is no incentive to advance the price beyond the original figures at which the price and commission have been agreed upon with the seller.

It is not intended only to negotiate the sale of an entire property but

It is not intended only to negotiate the sale of an entire property but interests in such may be sold or money obtained for development work. This Company especially solicits the business of making reports or examinations for non-resident mine owners on any of their mines in the United States, and obtaining special information as to their condition and so forth (said reports being confidential).

Those who conduct the business of the Company have had long experience in mining operations, and it is their intention to place the Company in a position to inspire the confidence of all who seek its assistance in its integrity and fair dealing.

We respectfully refer to any Bank in the City of San Francisco and to the Anglo-Californian Bank (Limited), London, as to the standing of the Board of Directors of this Company.

Descriptions of properties for sale with maps, reports and all necessary information, are left on file in the office of the Company.

Abstracts of such reports with prices of mines will be furnished

Abstracts of such reports with prices of mines will be furnished

pon application.

California has produced £267,000,000 in gold, and is still producing £2,680,000 a year. There are thousands of claims requiring capital for development. In other Pacific Coast States and Territories there are abandant opportunities for investment in mines of gold, silver, copper, lead, coal, and so forth. Information concerning these will be furnished by this Company on application.

This Company will also furnish competent engineers, superintendents, foremen, miners, millmen, assayers and others connected with the mining industry on application, furnishing their references and so forth.—Cable Address, "Chapin," San Francisco.

THE BUTE WORKS SUPPLY COMPANY, CARDIFF.

Telephone: No, 45 (Post Office and National). Telegrams : Gething, Cardiff.

WAGONS.—New to Latest Regulations, 50 with one end two Side and two Bottom Doors, Wheels with Wrought Bosses large capacity (12 inches longer and 4 inches deeper than usual), ready for Lettering. New to Latest Regulations, one end and two side doors, sides and ends 3 inch red deals, all inside underframe timbers of English oak; delivery, about 15 per week, commencing forthwith. 50 End Tip 10-ton Coal Wagons to New Regulations, equal to new, prompt delivery.

LOCOMOTIVES.—One good second-hand Saddle Tank Loco.
six wheels coupled, ready for instant work, and cheap for cash or
three years' purchase-lease. 14 inch cylinders, by Avonside Engine
Company, now at Cardiff.

RAILS.—Bridge, 14 to 120 lbs. per yard; Flange, 10 to 100 lbs. per yard; Double Head, 30 to 82 lbs. per yard; and Bull Head, 50 to 96 lbs. per yard.

- Wood, Iron, and Steel. A quantity of Metre Gauge Steel Sleepers for Sale, Cheap PORTABLE RAILWAY.-£11 per 100 Yards of Railway

(Steel Rails and Iron Sleepers), complete 3-TON CRANE .- Nearly new, on trolley; 4 feet 84 inch

EARTH WAGONS .- 75 side tipping 30-inch gauge steel

BRICKS - Pine and

PRINTING.

We are prepared to Compose, Stereotype, and Print Papers, Pamphlets, &c., in the most expeditious manner, and give Special Attention to Printing required on the formation of New Companies, including:

PROSPECTUSES, DIVIDEND WARRANTS, ANNUAL REPORTS, BALANCE-SHEETS. DEBENTURE AND SHARE LISTS, &c., &c.

Every kind of Commercial Printing Executed with Dispatch.

ESTIMATES FREE.

"THE MINING JOURNAL," 18, FINCH LANE, LONDON, E.C.

The Illining Journal, RAILWAY AND COMMERCIAL GAZETTE:

An Illustrated Record of Mining, Metallurgical, Railway, Financial, Industrial, and Engineering Progress.

ESTABLISHED IN 1835.

THE MINING JOURNAL, RAILWAY AND COMMERCIAL GAZETTE, published every SATURDAY MORNING, price SIXPENCE, is recognised throughout the World as being the oldest, most influential, and most widely circulated Journal devoted to the interests which it represents. It circulates

ALL OVER THE WORLD,

Amongst Mine Owners, Capitalists, Investors, Mining, Metallurgical, Railway and Mechanical Engineers, Railway Administrators, Manufacturers, &c., &c.

THE MINING JOURNAL, RAILWAY AND COMMERCIAL GAZETTE will also be found at leading Clubs, Hotels, Exchanges, Public Reading Rooms and Libraries, and British Consulates throughout the World, It has also correspondents and sources of information in almost every quarter of the globe. Its policy is absolutely independent; its circulation is cosmopolitan; and its literary scope embraces the entire field indicated by its title.

TO CORRESPONDENTS.—Letters on Elitorial Matters, or containing literary contributions should be addressed to "THE EDITOR." All matter intended for insertion must be written on one side of the paper only. The return of rejected manuscripts cannot be guaranteed. The Editor invites correspondence and items of news or information from readers in all parts of the World.

SUBSURIBERS.—The Annual Subscription to THE MINING JOURNAL, including postage to any part of the United Kingdom, is £1 4s. Abroad, £1 8s. payable half-yearly in advance. It can be purchased at all Rallway Bookstails and Newsagents throughout the United Kingdom for 6d O ADV ERTISERS.—The following is an abbreviated Scale of Charges for Advertising: —Companies' Prospectuses, £12 12s per column, or £20 per page; Companies' or Legai Announcements, 9d, per line, with a Minimum charge of 7s, £d; Sales by Auction, Publications, For Sale, Wanted, &c., &c., £d., £d. per line with a Minimum charge of 4s.

Displayed (Trade) Advertisements of 2 inches in depth (or more), Bingle Column measure, will be inserted at the following rates:—For 52 insertions 2s, £d, per insertion for each inch in depth; for 25 insertions 2s, £d. per insertion for each inch in depth; for 25 insertions or each inch in depth, Terms for special positions and contracts may be had on application. TO SUBSCRIBERS. - The Annual Subscription to THE MINING

ADVERTISEMENTS (which should in all cases be sent direct to THE MANAGER: can now be received for the forthcoming issue of THE MINING JOURNAL, RALLWAY AND COMMERCIAL GAZETTE, on FRIDAY, at 18, FINCH LANE, E.C., up till 6 p.m., and at 3, DORSET BUILDINGS, SALISBURY SQUARE, E.C., until 9 p.m.

THE MINING JOURNAL, is neither controlled, nor is any interest in it held or exercised, by any mine owner, speculator or syndicate, and it is in no way connected with any share dealing agency. The position occupied and the views expressed by it are alike absolutely independent

Editorial and Advertisement Office 18, FINCH LANE, LONDON, E.C.

Telegraphic and Cablegraphic Address: "TUTWORK, LONDON." Codes used : "A.B.C.," Moreing's, and "Universal.

CONTENTS

umber of "The Mining Journal, Railway and Commercial Gasette," August 4, 1894. Of this Number of

NEW PATENTS

| CONTRACTS OPEN | 029 | 010 | 909 | 999 | 999 | 040 | 000 | 494 | 0.00 | 4 |
|--------------------|----------|--------|---------|--------|---------|----------|---------|--------|------|---|
| OUR INQUIRY COLU | MN | *** | *** | 010 | 0.00 | *** | | 090 | 222 | 1 |
| DENNY DALTON GO | OLD FI | ELD | S (ZU | LULA | ND) | *** | 400 | 220 | | 1 |
| REVIEWS | *** | 200 | 609 | 107 | 010 | 0.00 | 000 | *** | | 1 |
| GOLD DIGGING IN | BRITIS | H G | UIAN. | A | 0.25 | *** | *** | 999 | 020 | 1 |
| SPECIAL CORRESPO | | CE: C | oloni | al and | Forei | gn. | | | | |
| Our Paris Lette | | *** | *** | *** | *** | 000 | *** | *** | | 8 |
| PROMISE OF MINES | RAL IN | CEN | TRAI | AU | STRAI | LIA | *** | *** | | 1 |
| TIN TICKETING | 419 | 000 | 400 | *** | 0.00 | 080 | *** | 989 | 000 | 1 |
| LEGAL INTELLIGEN | CE | *** | 000 | 000 | | 0.00 | *** | *** | | 2 |
| MEETINGS OF MINI | | | | | | | | | | |
| Central Montre | | | | | | | | | *** | 8 |
| Montrose Miniz | | | | | -Taltal | Nitrat | ie; Ha | rriety | ille | 8 |
| New Gold Hill | ; When | al Gre | enville | | *** | *** | *** | 090 | *** | 8 |
| Blue Hills ; We | est Fran | nces; | Bout | h Crof | ty: V | Velfore | 1 & 50 | ns (Lt | d) | 6 |
| NOTES ON THE PHIL | IPPIN | E 181 | LAND | 8 | *** | 010 | *** | *** | | 8 |
| FORTHCOMING MEE | TINGS | 3 | 000 | 040 | 491 | 000 | *** | 400 | | 8 |
| LATEST FROM THE | MINES | : Cab | logran | ns and | 1 Tele | grams | *** | *** | 000 | 8 |
| LEADING ARTICLES | | | - | | _ | | | | | |
| Outlook for the | | Trade | 8; T | he " I | Iome " | of Go | ld | 010 | *** | 8 |
| NOTES AND COMME | NTS | 000 | 40.0 | | 000 | 000 | 000 | *** | 0.00 | 8 |
| OUR CITY ARTICLE | | *** | 0.00 | *** | 0.00 | 000 | 0.0 | *** | *** | 8 |
| DIVIDENDS ANNOUS | NCED | *** | | 000 | 00+ | 000 | 000 | 498 | *** | 8 |
| MINING IN CORNWA | LL AN | D D | EVON | ſ | 003 | *** | 044 | 050 | | ŧ |
| THE EDITOR'S LETTI | ER BOX | K | 012 | *** | 080 | *** | *** | *** | | 8 |
| THE METAL MARKE | | | | | | | | | | |
| The London Me | | | 469 | 199 | 000 | 049 | 0 : 0 | *** | 00.0 | 8 |
| "THE MINING JOUR | _ | - | RE LI | ST | 999 | 000 | 989 | 0.20 | 854- | |
| METAL TRADE STATE | | | 000 | 003 | 000 | 999 | *** | *** | 0.00 | 3 |
| PROVINCIAL SHARE | - | | *** | *** | *** | 0.84 | *** | *** | | 8 |
| REPORTS FROM THE | | | 200 | | *** | 491 | 080 | 200 | 494 | 8 |
| MISCELLANEOUS MI | | 3 | | | | | | | | |
| The New Tivo | - | 010 | 010 | 487 | *** | *** | *** | 0.60 | *** | 8 |
| ADVERTISEMENTS- | (See Inc | lex to | Trade | Adve | rtisem | ents, p. | . 838). | | | |

LONDON: AUGUST 4, 1894.

COMMERCIAL and industrial circles have special and peculiar experience of the truth that average level. OUTLOOK FOR THE METAL TRADES.

rival in the position of the metal markets. Metals are entirely dependent, more so perhaps than any other class of commodity, upon the general condition of trade, and it a revival. For a long while past, both consumption and production in every class of goods, and especially in metals, have been at something like a standstill. Money has been hoarded up, and only the most discreet and cautious forms of investment have been in favour. The natural consequence of this accumulation of capital will be another era of speculation and industrial activity, and there are some signs that this state of things is already close at hand. So far, the movement in finance, which must precede any general development of industrial activity, has been a very slight and partial one, but it is eminently encouraging to see even the signs of a renewal of confidence. The metal markets cannot be expected to recover from tion of canals, and the prosecution of mining and other enterprises once more awaken a brisk demand throughout the world for the laws. Man is gifted with intellect and could not possibly make

products with which they deal. It is encouraging that, at least to some extent, silver seems to be recovering from its lowest level, and it can hardly be but that the position of the white metal will improve under the double stimulus of a reduced output for itself, and a larger production of gold. The restriction of output to which we have referred must play an important part in strengthening the position of the metal markets once the better feeling to be hoped for in finance and trade generally becomes perceptible. In copper, iron, and steel, it is true, stocks are increasing, but this is because of the abnormally low level at which consumption has been left for some time past, and not primarily because of expanding output. A good many of the weaker copper mines have been crushed out of existence, and it cannot be believed that the American mines could any longer continue the policy of making up for the lowness of prices by increase in their outturn. The statistical position of copper is not unfavourable when one considers the enormous demand there would be for the metal if money were again freely directed into railway building, electrical engineering, and other enterprise The same thing is not so true of tin; and in spite of the disastrous position which that metal occupies, there is still talk of adding to production by the working of new deposits in South Africa and elsewhere. Lead has not yet felt the full influence of the decline in the value of silver. The general badness of trade in the United States has enabled silver mines to be worked at a very small cost, which would not be possible in more prosperous times. The metal markets, however, expect to see the first signs of improvement in must those universal metals—iron and steel. far, the hopes of revival in this direction are far from support by current condition. Every branch of the iron and stee crades is sunk in stagnation, and producers are closing their works rather than continue to lose money. So far as the depression is capable of analysis, it would seem to be due most largely to the unsettled feeling produced by the coal difficulty, and the tariff question in America, and to a greater cost of production in this country than on the Continent. However, to a certain extent the greater activity in the German metallurgical branches is a sign of hope for our own. It shows that the demand for metals is beginning to revive, and with the progress of that revival we may expect to assume a more favourable position in the struggle for orders. Our Free Trade policy undoubtedly militates against the success of our ironmasters in foreign markets when prices are at their lowest, but it is an indispensable aid to our prosperity when values begin to rise to a profitable level. The settlement of the coal question for a little while ahead will also introduce a greatly needed element of stability into the calculations of producers and buyers. There have also of late been a good many more enquiries reaching iron and steel masters on account of foreign and colonial markets. Australasia and South America are once more showing a disposition to buy, and even the outbreak of war between China and Japan will tend to the advantage of our metallurgists. It is difficult to look with any degree of eagerness the future after the disappointing character of the past, but the slight development of confidence which is apparent in the stock markets, together with the great reduction which has taken place in the output of our blast furnaces. mills, and forges, may fairly give some occasion for hope. Everything points to the conclusion that business affairs generally are on the point of mending, and such an improvement cannot take place without being reflected favourably upon the metal markets

THE "HOME" OF GOLD.

THE practical miner, whose experience has not been gained on one particular field, and whose knowledge of his profession is not confined to one particular geological system, but who in the course of his wanderings has worked for minerals in many climes and under a variety of geological conditions, listens with not a little amusement to the very confident opinions of experts who are always prepared to diagnose with dogmatic assurance the mineral possibilities and probabilities of a region with which they are totally unacquainted. In the early days of modern gold mining the expert of circumscribed experience would confidently assert that quartz, to carry gold, should be characterised by ferruginous stains and be sugary in texture. Another, hailing from a different field, would be equally that, to carry payable gold, quartz should be milky white, or blue, or black, or grey, or mottled, or whatever other colour he had seen gold in previously; or, again, that the footwall should be granite, or trap, or slate, according to the character of the rock of the country in which his mineralogical education, so far as it went, had been gained. liar experience of the truth that every lane has a turning, If quartz was "buck," it was useless to expect gold in that. If, and arguing upon this old axiom there ought to be reason on the other hand, the stone in an outcropping voin was " kindly " in appearance, then it was worth prospecting. desire of one mineral adviser would be to secure a nicely laminated lode, but a man of exclusively Randt experience will is the law of trade that a long period of depression should herald tell you that laminations are abominations, and indicative only of faulty ground. When it was reported that gold had been discovered in ironstone at Mount Morgan, in Queensland, an expert of very high repute did not hesitate to declare that the report was preposterous, as the association of gold with ironstone was contrary to the laws of Nature. Fortunately for the proprietors of the mine gold was found in the ironstone, and Nature was convicted of having performed what the expert probably considered an illegal act, for which no doubt he regretted he had no power to punish her. Not only was there gold in the ironstone, but it was there in such quantities that Mount Morgan has long been considered the premier gold mine of the world. Apparently there is no point of finality to be their present stagnation until the building of railways, the construcof what persons in their omnipotence consider breaches of her

vi ti

lo

a mistake, but Nature is lamentably ignorant, and ought to be sent to the School of Mines for a few years so that she might be properly instructed in her business. In Western Australia, she has actually been guilty of putting gold in "buck" quartz, and in other places it has been proved that she has committed acts that are equally reprehensible. It is very well known that outside the primary rocks there should be no gold reefs, but Nature has offended against her laws in this as in other respects. When the banket reefs of the Randt were first opened, plenty of experts were confident that only surface scratching would pay. The reefs would not go down, and if they did they would be too poor to work. It was against the laws of Nature that the reefs should continue in richness as depth was attained. But they have. When we look at alluvial gold mining we find some men who pin their faith on the exist-volcanic agency in the neighbourhood, then the "lead" is of too recent creation, and not likely to be of much account. Others will only touch a huge surface placer, which can be hydraulicked away at 11d. a yard, and others pin their faith to rich, nuggetty deposits in natural rock riffles in the bed of ancient or existing streams. No doubt the experts are all right within their limitations, but the object in view in citing the instances already enumerated is to suggest that perhaps Nature does know her own business, and that man, after all, has still some knowledge to acquire. It is said that there is no royal road to learning, and what is true in that case is possibly true with regard to gold mining. Men will insist upon bringing knowledge gained on one field and working by it in another where the conditions are different. Careful observation would reveal the danger of this to them if they were less conservative in their mental habits, but they blunder blindly on, and, unless they happen by pure accident to stumble across a lucky find, allow someone who has an unprejudiced vision to profit by the experience they might have gained themselves. It is dangerous to be entirely guided by what you have learned in gold mining unless your experience is very wide indeed, and even then new problems will present themselves to the skilled observer in every fresh field that he visits. The wise rule is to be guided by the history of the district, if it has one, and, if it has not, to wait until it has before venturing to express a too confident opinion. Favourable geological conditions, so far as they are known, count for much, but not for all. The soil on the plains of Timbuctoo may be similar to that in which Scotch heather grows, and the mould in which the North Pole is fixed, may be admirably adapted for the growth of bananas; but ever missionaries thrive better than heather bushes on the plains of Timbuctoo, and bananas found within the Frigid Zone are usually in tins. The soil is not everything in agriculture, the matrix is not everything in gold mining. But the inconsistent vagaries of gold are far greater than any experienced in the vegetable world. In the occurrence of auriferous deposits wellestablished theories are often upset, and regions usually considered, with apparent good reason, to be barren, prove of astounding richness, while those of great promise raise expectations which are never fulfilled. The old miner was right in his philosophy, as in his fact, when, speaking of gold, he said, "Where it be there it be, and where it b'aint, there be I."

NOTES AND COMMENTS.

THE news communicated to Reuter's Agency this week by the British South Africa Company is of ing, especially to the shareholders of the Chartered Company. It is confirmatory of the many reports that have reached us from time to time of the mineral wealth of the newly-conquered country of Matabeleland. We cannot do better than quote the information in extenso: - "Mr. Albert Grey, director of the British South Africa Company, cables to Cape Town under date of July 27 :- 'The Mashonaland Agency commence crushing at Long's Reef in September. The reefs are very good in the districts of Victoria and Selukwe, of which the development already gives the best evidence.' A new gold region has been discovered by the agent of the Consolidated Gold Fields of South Africa in Motoko's country, about 120 miles north-east by east of Salisbury. Excellent finds are being made in the Balingwe Mountains to the eastward of Buluwayo. Coal has not only been found in two places west of Buluwayo, but samples of coal have been brought in from Inyokas (Manica). The mining expert thinks there is almost a certainty of extensive deposits of coal there. The company's police have been sent to reserve the mine can do, a career of success should be ensured to it. land for the present, with a view to the company working the coal and supplying it to the mines at the lowest possible price." The effect of this news upon the market was naturally a cheerful one: such a tone, indeed, it has greatly needed for some time past.

THE coal rights owned by the Montrose Gold Mining and Exploration Company are developing exceedingly well, and when the projected railway line from Pretoria to Pietersburg becomes an accomplished fact—without which the transport of commodities is too dear to admit of their being profitably dis- and they will have to pay for it in silver. Thus the law of has become pretty world-wide by this time. We have frequently posed of-there should be a considerable trade accruing. The tion and development of the surrounding districts, and as every year increases their commercial activity, the mines of the company should be continually rising in value. Beyond this the construction of the railway must do as much to enhance the panies, who recently met, were unable to forecast such an event mining the precious metal. The gold fever has undoubtedly profitableness of the company's farms and territories. Reports as an Oriental war, else we might have had the value of their to hand show that already their values have risen considerably, opinions on the subject. while offers, increasing in figure on every occasion, are being made for their purchase. While the prices offered are now

elsewhere. The only course open to the shareholders and the board is to wait, and they will in all human probability get their reward.

Ir will be an undeniable satisfaction to the shareholders in the Central Montrose Mining Company to have the opinion of an independent mining expert like Mr. Leyson upon their property. It vindicates to the full the management from anything like an imputation that the works prosecuted in the past have not been judiciously planned out. The uncertainties of mining are apparent to everybody, and the unpromising character of the reef in the 380 feet level could not have been foreseen by any mining man, however keen his eye and wide his experience. There is much compensation for this disappointment in the remarks Mr. Leyson has been able to make of the Sugar Bush reef prospects, where the ore is said to be of a kind amenable to the cyanide process of treatment. This dictum has found ample justification in the results of the experiments, which hold out considerable prospect of a favourable result with a judicious and careful application of the treatment.

A MEIGHBOURING company, with an ample cyanide plant, has extended the courtesy of the use of "its machinery in order that a conclusive test might be given to the pyritic ore from the Sugar Bush reef. Of seven samples submitted to treatment, the average result was 191 dwts., a figure some way beyond the previous tests. In the event of the results continuing as favourable, it is contemplated to submit 20 or 30 tons, as a sample, to the treatment. The natural outcome of these assays is a proposal for the erection of a cyanide plant. The estimated cost of such a plant is £1000, and for that provision could be made for the treatment of 1000 tons a month. The board have, however, decided, wisely we think, to await the result of the litigation pending between the MacArthur-Forrest Company and the May Consolidated Company as to the royalties to be paid. In the event of the issue being decided against the Process Company, there will be considerable savings effected. The expenditure, though a comparatively small one in view of the results expected to be attained, is one that should be well considered before finally undertaken, and the Chairman's promise that it would be delayed until a large body of payable ore was in sight, shows that no undue precipitation will be committed.

FULL justification will be found in the rapidity with which South Africa is developing for the policy advocated from the chair at Tuesday's meeting of the Wolverand Gold Mining Company. Under most circumstances a policy of waiting bears upon it the stamp of prudence, but for a company whose property is situated in a country advancing in all ways with great swiftness of pace, the justification for this course is far ample. Greater economy and increased facilities of transport bear closely upon the success or failure of any commercial undertaking, more especially upon the issue of a mining venture, and these advantages are growing with every year which passes over the Transval and its neighbourhood. In the extreme brevity marking the careers of so many mining companies there lies a warning against undue precipitancy. There can be little doubt that more than a few promising mining concerns have split upon this rock. The first set of shareholders are, as it is termed, "frozen out," and they mournfully depart leaving their capital behind. Reconstruction is often said to be a necessary stage in the progress towards remunerative working. That this should be so argues a certain amount of shortsightedness either in the estimate formed of the requisite capital, or in the initial steps of management. This stage the Wolverand Company has passed, and Mr. Sisterson's exortation to his shareholders not to be "frozen out" should be more forcible than under other circumstances it

REPORTS to hand in the New Zealand papers speak in the nost hopeful terms of the Waihi Gold Mining Company's mine, and state that the more recent explorations have far more than justified the anticipations which were formed of it. A main reef give rise to an optimistic forecast of the future. Developments have been proceeding all over the mine, and the results have both in gold and in silver have been more than enough to show that the mine has considerable capabilities of profitable working. still being expeditiously carried forward, and the assays of the this could be taken as anything like a fair example of what the fruitgrowers, market-gardeners, manufacturers, and importers,

currency countries in the ordinary course of commercial colony by the Broken Hill Silver Mines. operations will be a good deal lessened. The war, however is likely to be a costly one to both belligerent parties that "commodity." The Chairmen of the silver mining com-

longer to remain so. There is the same story to be told here as view is endorsed by no less an authority than Mr. Asquith him- rich finds are reported, and companies with plenty of capital at

self, for he recently announced to Parliament his intention of making some small additions to the staff, in order to incre upon its present efficiency. The work of exerting capable supervision over the enormous extent of mines operated in this country is at once of great difficulty and great importance. None who has consulted at all the statistics relating to the English industry will be likely to underrate the effort required for a proper and effective surveillance. But the very difficulty of bringing the Government completely into touch with what goes on underground is of itself cogent testimony as to its absolute necessity. No additional evidence is required to prove that workmen-and miners amongst othersare supremely careless where their own lives are concerned, and a check upon their habit of laisse-faire is a great desirability. Accidents in mines have frequently followed upon causes that might have been previously detected by a careful mine inspection. But to insist now upon the necessity of ample supervision is a needless task. Government, to do it justice, has never affected to disregard its responsibilities, but it may, perhaps, occasionally be thought to have been a little too sparing of the public money in this all-important direction.

THE Government battery in South Australia is having directed against it the full force of criticism, some of which is of an adverse, if temperate, character. It is complained that an attempt is made by the authorities to combine the essentially incompatible functions of Customs' battery and experimental laboratory. The independent authorities point out that whereas a charge of 10s. per ton is, compared with the rates ruling elsewhere, somewhat inadequate for the ordinary treatment of the ore alone, the sum is wholly inadequate if the institution aim at a full discharge of the work with all that nicety and exactness which is requisite when the cyanide process, as a mode for the treatment of particular kinds of ore, is on trial. There can hardly be any question that the more useful for the institution to perform would be that of solving the problem of the treatment of the particular ores brought out of the South Australian mines. It is hardly conceivable that the Government should have put up the battery for the mere gains that would accrue. On the contrary, the step is obviously dictated by a desire to give the process a thorough testing in the country, and the work, if carefully and accurately performed, would redound strongly to the interests of South Australian mining.

IF imitation be the sincerest flattery, the Witwatersrand Chamber of Mines has every reason to be gratified by the proposal mooted in Australia for the formation of a similar institution on the same lines. There can be no doubt as to the valuable offices performed by such a Chamber. Generally peaking, an authorised organisation of the kind has to do more in the justification of its existence than one starting under less favourable auspices. The critics are actuated in regard to it by more exacting spirit than might otherwise move them. They are half disarmed, however, by the modesty with which the Chamber of Mines exercise their functions. No pretensions to the discharge of exalted offices mars the manner in which their useful work is performed. There is a quietude and modesty about what they do and how they do it to add to the regard and gratitude which the mining man cannot but feel for those who have done so much towards the informing and organisation of his industry.

Considering the low state to which silver has fallen, and the far from bright future which seems to lie before it, much attention has been and is being directed to the Broken Hill Mines, In dealing with the future of the Barrier Silver Mines, a writer in the Adelaide Observer produces some interesting statistics. He says that the yearly cost of working the mines on the Broken Hill line of lode may be put down roughly at something like £1,560,000. It we deduct say £540,000 for shipping charges on bullion, cost of timber, coke, and coal, procured from abroad, it would leave £1,020,000 for wages, railway charges, &c. (of course 28 feet thick is a valuable possession, and may not unnaturally the money paid for fluxes, such as limestone and iron, nearly all goes in wages). If we add to this last amount £149,338 received in dividends by 3530 South Australian shareholders holding been in every case of a highly satisfactory nature. The assays 248,898 shares in the Proprietary Mine, the amount would total £1,169,338. The exact amount circulated in Australia cannot possibly be known, but if we knock For the rest, the plant running at the mine is of a high order of off say £85,000 as the savings [of the employees, and efficiency, and, so far as the tests of use have proceeded, the a like sum for cash sent to the other colonies for results have been very good. The sinking of No. 1 winze is a portion of the wants of the Barrier people, it would leave the handsome sum of £1,000,000 per annum for circulation in the ore gained have uniformly exceeded 2 ounces to the ton. If colony; in the first place, more directly among the farmers, and then through them distributed all round, an enormous sum truly, considering the meagre population of the province-two What effect the war between China and Japan will have or three years ago it would probably have been 50 per cent. upon the value of silver is a question occupying the minds of more—but if we consider the increased railway passenger traffic some of the financial authorities at the present time. It would and the thousand and one other indirect benefits, including the seem the effects would largely counterbalance each other. On New South Wales Government expenditure on the Barrier, it the one hand, the amount of silver absorbed by these silver would b difficult to estimate the advantages conferred on this

THE Nelson Miner has been laying stress upon a fact which compensation comes into effect. There seems a strong probabi. in these columns declared that whatever dolorous effect the fall value of coal obviously depends almost entirely upon the condi- lity, in case the war should last, of these countries raising a loan in silver has had upon many phases of commerce and of mining in one of the European capitals, and should the accretion be it has, at any rate, given stimulus to the search for gold. This turned into silver there will be an unusually brisk demand for has become, it seems, very manifest in British Columbia, where at present there is an unusual activity in prospecting for and "caught on," says this patriotic newspaper, "and it is not improbable that the increased attention given to hydraulic ad A GENERAL feeling seems to prevail among members of the quartz mining, aided by modern facilities of travel and im-Cambrian Association of Miners that the Governmental in- proved machinery, may result in discoveries of the precious below the limit of consideration, they are not likely much spection of mines might be more completely carried out. The metal that will eclipse the wonders of the early sixties. Already

their back are preparing to work systematically many of the old grounds in Cariboo and elsewhere that have only hitherto been scratched." The writer then naturally proceeds to describe in glowing terms the wonderful richness of British Columbia. This was to be expected, and, therefore, without quotation our readers can pretty well imagine what a patriot would declare. Still, it cannot be denied that British Columbia possesses imm mineral resources, sufficient to repay enterprise and speculation.

OUR CITY ARTICLE.

FRIDAY EVENING.

THE MINING MARKET.

A fairly steady week.—Continuous rise in Chartered.—Indians firm.—A hopeful close.

THIS has been a fairly firm week for the Mining market.

Business has not been at all overwhelming in magnitude,
butthe tone has remained a steady one. Monday opened
hopefully for both markets. In the South African section a
strong undercurrent was the feature in all departments. Chartered rose to a higher point than they had reached for a long
time, and all the land shares rose sympathetically in a body.
Diamonds, too, were strong, both De Beers and Jagers improving. In gold shares the tone was unmistakably firm. Rises
occurred in the large majority of cases. Indians were the
strongest spot in the Miscellaneous market. The demand
for them was persistent and carried most of the shares
higher. Elsewhere the market was quiet, but by no means weak. higher. Elsewhere the market was quiet, but by no means weak. On Tuesday the markets seemed to be affected with the holiday On Tuesday the markets seemed to be affected with the holiday spirit, the speculative characteristic being almost entirely confined to the land section, where Chartered were the most prominent feature at a further rise. Gold shares in the South African department were quiet, and the same disposition to sleepiness affected the other branches. In the Miscellaneous department operations were largely confined to the Indian shares, where Mysores and Nundydroogs displayed a buoyant tendency. Everywhere else in the market there was but little doing, and the prices without positively moving backwards to any pronounced extent certainly exhibited no tendency upwards. Wednesday brought little change to the Mining market. As on the previous day, activity was almost entirely confined to the Land shares, where Chartered were the principal feature. Favourable news from Mashonaland occasioned a brisk demand upon the shares, which sent them up 1s. 6d. to 33s. 9d. The upon the shares, which sent them up 1s. 6d. to 33s. 9d. The influence exerted by these shares communicated itself to the land influence exerted by these shares communicated itself to the land section generally, where improvements were the rule. Diamonds, on the contrary, were dull, and gold shares quiet, though the undercurrent was satisfactory. Placidity was also the leading characteristic of the Miscellaneous market. Indians were a good deal less active, and dealings in other shares were reduced to a minimum. While, taken altogether, the markets were not over active on Thursday, there were one or two interesting spots, especially in the South African department. Chartered fluctuated somewhat doubtfully. At the opening they continued to rise, and even reached at one time 34s. 3d. Shortly afterwards, however, a reaction set in, with the result that they fell to 33s. 3d. Most of the other shares in the Land department remained strong. In Diamond shares the most striking movement was the continued fall in Jagers. Gold shares remained firm, though the market for them was somewhat restricted. The Miscellaneous section was rather quieter, and the movements noticeable there were wholly unimportant.

British Mines.

There is very little to report as to the Cornish Share Market during the past week, except a recontinuance of the depression that has been ruling for some time. Quotations in most instances are nominal. With a turn in tin a recovery in shares stances are nominal. With a turn in tin a recovery in shares would probably quickly ensue, but business at present is very restricted. A good report was presented at the South Crofty meeting last Thursday. The mine is said to be looking much better, and, with a fair price for tin, would doubtless have shown a profit.—Risen: Wheal Agar, 5s.; Wheal Grenville, 5s. (allowing for dividend; and Wheal Kitty, 1s.—Fallen: Carn Brea, 10s.; Dolcoath, 20s.; Killifreth, 2s. 6d.; Tincroft, 5s.; and East Pool, 10s. Blue Hills are now quoted call paid (3s.) and West Frances call paid (3s. 6d.).

South African Shares.

An improved tone manifested itself early in the week in South African shares. There was no great animation evidenced, but the undercurrent was strong and hopeful to a degree. Chartered were active. At the close on Saturday they were quoted at 31s. 3d., but during Monday they rose to 31s. 10½d. buyers. A disposition to snatch profits caused a small set back, but the farmness remained. Bechs. and Oceanas revived, the farmness remained. Bechs. and Oceanas revived, the farmness remained. Bechs. and Oceanas revived, the farmness remained. Bechs. and Cambesias rose \(\frac{1}{2} \) to 2\frac{1}{2}. For gold shares the market was conspicuously firm, Crowns hardening to 8½, Durbans to 5½, Langlaage to 4½, Robinsons to 6½, Transvaal Gold to ½, United Roodepoort to 2½, Sheba to 27s. 3d., and Princess to ½½ buyers. On the other hand, Primroses, Wolhuters, Langlaagte Royal and Paarl Central fell slightly. Diamonds were well in request De Beers and Jagers both improved, the former \(\frac{1}{2} \) to 13½. Business was on Tuesday rather more restricted in this market. The centre of the speculative spirit was to be found in Chartered, which continued extremely buoyant. At one time the price was rushed up to 32s. 9d., but a fall of 6d. shortly afterwards, occurred owing to profit taking. The shares left off 6d. better on the day. Bechs. and Explorings were participators in the activity thus engendered, the former rising 6d. and closing at 25s. 6d. Diamonds were thrown into the shade by the unusual activity in Lands. A fall of \(\frac{1}{2} \) occurred both in Jagers and De Beers. Gold shares were dull. Cities relapsed \(\frac{1}{2} \), but Crowns advanced \(\frac{1}{2} \), closing 8\(\frac{1}{2} \). Standpassete to 4\(\frac{1}{2} \), but Crowns advanced \(\frac{1}{2} \), closing 8\(\frac{1}{2} \). Standpassete to 4\(\frac{1}{2} \), but Crowns advanced \(\frac{1}{2} \), closing 8\(\frac{1}{2} \). Standpassete to 4\(\frac{1}{2} \), but Crowns advanced \(\frac{1}{2} \), closing 8\(\frac{1}{2} \). Standpassete to 4\ An improved tone manifested itself early in the week in South

monthly return. De Beers declined in sympathy. Gold shares were monthly return. De Beers declined in sympathy. Gold shares were quiet, but firmer. Stanhopes were enquired for and improved to 2½. Henry Nourse have further advanced, closing 2½ buyers. There are also rises in Primroses, Robinson, Worcester, Champ d'Or, Village Main Reef, Princess, May Consolidated, and Transvaal Gold. Relapses occurred in Meyer and Charlton, Langlaagte Royal, while small declines were registered in Rand Mines, Champ d'Or Deep and Sutherland Reef. While Thursday's business in the Mining market was somewhat restricted there were one or two movements which attracted a good deal of attention. Chartered continued to manifest activity. At one time during the day the shares rose as high as 34s. 3d., but a disposition to profit snatching manifested itself at that point which occasioned a set back to 33s. 3d. The influence of this relapse occasioned a recession in manifested itself at that point which occasioned a set back to 33s. 3d. The influence of this relapse occasioned a recession in Bechs. which went back to 25s. 6d. Explorings, Zambesias, and Gold Fields of Mashonaland, however, continued firm. The tendency of diamond shares was uncertain. De Beers remained where they were, but Jagers suffered a further fall to 11s. Though there were no conspicuous movements in the Rand gold section, the firmness hitherto noticeable in them was maintained, Though there were no conspicuous movements in the Rand gold section, the firmness hitherto noticeable in them was maintained, Cities further improved, closing 14\frac{3}{2}, and there were also slight advances in Robinson, Heriot, Worcester, United Roodepoort, Knight, and Spes Bona, Witwatersrand shares generally having a firm tone; but Henry Nourse, and Rand Mines reacted \(\frac{1}{3}\)r, and Rietfontein, Buffelsdoorn, and Champ d'Or Deep showed further flatness. Shebas advanced 28s. 3d. on a highly satisfactory return. Land shares have continued to monopolise attention during to-day. Chartered were quoted generally at 33s. 9d., while Oceana, Exploring, and the other allied shares have been strong. Diamonds have remained flat, with anjespecially weak spot in Jagers. With gold shares the case has been the same as earlier in the week. Shares have remained quiet, but firm.—Risen: Oceana Development, 1s. 3d.; Oceana, 2s. 6d.; Robinson, 2s. 6d.; South African Gold Trust, 2s. 6d.; ditto Trust and Finance, 6d.; Sheba, 1s. 6d.; Spitzkop, 6d.; Stanhopo, 2s. 6d.; Transvaal Exploration, 4s.; United Roodepoort, 1s. 3d.; Worcester. 3s. 9d.; Witwatersrand and Knight's, 6d.; Zambesia, 12s. 6d.: African Gold Recovery, 3s. 9d.; Bechuanaland, 1s.; Barrett, 3d.; Central Zouts., 6d.; Chartered, 2s. 6d.; Gold Fields of Mashonaland, 2s. 6d.; Geldenhuis Estate, 2s. 6d.; Gold Fields of Mashonaland, 2s. 6d.; Geldenhuis Estate, 2s. 6d.; Gold Fields of Mashonaland, 2s. 6d.; Geldenhuis Estate, 2s. 6d.; Gold Fields of Mashonaland, 2s. 6d.; Geldenhuis Estate, 2s. 6d.; Gold Fields of Mashonaland Agency, 1s. 3d.; Moodies, 1s.—Fallen: New Jagers, 32s. 6d.; New Virginia, 6d.; Potchefstroom, 6d.; Mays, 6d.; Mashonaland Agency, 1s. 3d.; Moodies, 1s.—Fallen: New Jagers, 32s. 6d.; New Virginia, 6d.; Potchefstroom, 6d.; Rand Mines, 2s. 6d.; Southern Land (15s. paid), 6d.: ditto (fully paid), 6d.; Buffelsdoorn, 3s.; Champ d'Or Deep, 6d.; Geldenhuis Main Reef, 6d.; Jubilee, 2s. 6d.; Klerksdorp, 3d.; Main Reef, 1s. 3d.; Modderfontein, 6d.

Miscellane

Miscellaneous Shares.

Indians apart, the Miscellaneous market was not active at the re-opening on Monday. Mysores were in request, and there was a firm market for Balaghats, Kempinkotes, and Mysore Reefs. Mount Morgan, Brilliant Block, and Bayley's Reward were better. Alaska-Treadwell were quoted & down, ex the dividend of 1s. 6d, and slight declines occurred in De Lamar, Harabaka Lights declines occurred in De Lamar declines occurred in Declin quahala, Lisbon, Idaho, and one or two others. On Tuesday Mysores continued in request, a satisfactory cablegram from the mine causing them to harden. Nundydroogs improved with them to 29s. 6d. Elsewhere the Indian market was rather dull. Slight relapses occurred in Mysoro Reefs, Balaghats, Wests, Wynaads, and Harnhallis. Australian and American mines generally were rather flat. Rio Tinto fell \$\frac{1}{2}\$ to \$12\frac{1}{4}\$. There were few dealings on Wednesday in the Miscellaneous market, and these did dealings on Wednesday in the Miscellaneous market, and these did not produce changes of any importance. In Indian shares Nundydroogs reacted to a slight extent, while small recessions took place in Gold Fields of Mysore, Mysore Reefs, and Harnhalli. Mysore, Ooregums, and Champions remained at the same figure as on the preceding day, while Wynaads gained the turn of the market. In other directions miscellaneous shares were dull. Day Dawn Block, Brilliant, and St. George, New Queen, Del Reys, and Don Pedro, fell slightly. Among the miscellaneous shares there was a fair amount of activity on Thursday. In the Indian section Nundydroog rose 1s. to 30s. 6d. On ther hand small recessions took place in Mysore West and Mysore-Wynaad. Prices in other directions generally drooped. Thus St. John del Rey and Jay Hawk were lower. Rio Tinto gained ½ to 12½. There has been little doing to day in the Miscellaneous market. Lisbon-Berlyns have absorbed a good deal of attention, but the attitude of the speculator towards them is not wholly a favourable one. Indians have been not wholly a favourable one. Indians have been n. Nundydroogs are especially in request, and close up at 31s. 6d. Mysore are also buoyant firm. firm. Nundydroogs are especially in request, and close ls. up at 31s. 6d. Mysore are also buoyant. Risen: Bayley's Reward, 1s.; Brilliant St. George, 1s. 6d. (allowing for dividend); De Lamar, 1s. (allowing for dividend); Libiols, 2s. 6d.; Mill's Day Dawn, 1s. 3d.; Mysore, 2s. 6d.; Nundydroog, 1s. 3d.; Ko: Tinto, 6s. 3d.; West Australian (fully paid) 2s. 6d.; ditto (4s. paid), 1s.—Fallen: Australasian, 3d.; Bonnie, 3d.; Brilliant Block, 1s. 3d.; Broken Hill Proprietary, 1s. 3d.; Cape Copper, 1s. 3d.; Carrington, 3d.; Colombian Hydraulic, 6d.; Jay Hawk, 6d.; Montana, 1s.; Mysore Harnhalli, 3d.; ditto Reefs, 1s.; New Guston, 2s. 6d.; New Queen, 3d.; Richmond, 6d.

STOCK EXCHANGE SETTLING DAYS. Settling Days on the Stock Exchange are as follow :-

STOCKS AND SHARES, Ticket Days. Continuation Days. Monday, August 13 | Tuesday, August 14 | Wednesday, Aug. 15 Tuesday, August 28 | Wednesday, Aug. 29 | Thursday, Aug. 30

DIVIDENDS ANNOUNCED.

Baker's Creex Gold, 1s. per share. Champion Reef Gold Mining, 2s. per share. Mount Morgan, 6d. per share. Wheal Grenville, 5s. per share.

Zeehan-Montana, fully paid, 8d. per share.

Zeehan-Montana, 12s. 6d. paid, 5d. per share.

Briggs, Son, and Co.. A, 18s. 9d. per share. Brigga, Son, and Co., B, 12s. 9d. per share. Fife Coal, 3 per cent. Lion Foundry, 6 per cent. Sandwell Park Colliery, 15 per cent. Allsopp's Brewery, 2 per cent.
Anglo-American Debenture Corporation, 41 per cent. Bacon and Co., 8 per cent.
Belfast and County Down Railway, 6 per cent.
Belfast and Northern Counties Railway, 4 per cent. Bell and Co., 21 per cent. Bristol Tramways and Carriage Company, 6 per cent. British Wagon, 10 per cent. Brown, Marshalls and Co., 10 per cent. Buffalo and Lake Huron Railway (Canada), 5s. 3d. per share. Calais Tramways, † per cent. Cap Martin Hotel, 7 per cent. Coatbridge Gas, 10 per cent. Coatbridge Gas (New), 7 per cent.

Emerald and Phoenix Breweries Pref., 8s. per share. Fox and Co., 61 per cent.
Freehold and Leasehold Investment, 5 per cent. Great Eastern Hotel (Calcutta), 3 per cent Great Eastern Hotel (Calcutta), 3 per cent.
Great Western Railway, 4½ per cent.
Greenock and Port Glasgow Tramways, 5 per cent.
Isle of Wight Railway Pref. Stock, 4 per cent.
Isle of Wight Pref. Converted Stock, 4 per cent.
Isle of Wight Deferred Converted Stock, 2½ per cent.
Kensington and Knightsbridge Electric Lighting, 5 per cent.
Liverpool Overhead Railway, 1 per cent.
Liverpool Overhead Railway Pref., 5 per cent.
McEwan and Co., ordinary, 10 per cent. McEwan and Co., ordinary, 10 per cent.

McEwan and Co., ordinary, 10 per cent.

McEwan and Co., ordinary, 10 per cent. bonus.

McEwan and Co., preference, 5 per cent.

Midland Railway Carriage and Wagon, 7 per cent.

Midland Railway Carriage and Wagon, preference, 6 per cent.

Munster and Leinster Bank, 10 per cent. Munster and Leinster Bank, 10 per cent
Naval Construction and Armaments, 1½ per cent.
New City of London Brewery, 4 per cent.
New City of London Brewery, preference, 2½ per cent.
New Imperial Investment, preference stock, 4½ per cent.
Northern Breweries, 8 per cent.
North Metropolitan Tramways, 8 per cent.
North Stafford Railway, 4 per cent.
Price's Patent Candle Co., 10s. per share.
Rhymney Railway, 7½ per cent.
Rosario Nitrate, 5 per cent.
Scottish Wagon Co., 5 per cent.
Taff Railway, 3½ per cent.
United Alkali Pref., 7s. per share.
United Proporty and Assets, 8 per cent. United Alkali Fret., 7s. per snare.
United Property and Assets, 8 per cent.
United Property and Assets Pref., 6 per cent.
Waller and Sons (Brewery), 10 per cent.
York New Waterworks, 9s. per share.
York New Waterworks New, 6s. 3d. per share.
York New Waterwork Pref., 5s. per share.
Yorkshire Guarantee and Securities Corporation, 12½ per cent. York-street Flax (Belfast), 6 per cent.
York Street Flax (Belfast) Pref., 6 per cent.
York United Gas Light, 5s. per share.
Younger and Co., 10 per cent.
Younger and Co. Pref., 5 per cent. Cowdenheath Coal, 15 per cent. Cowdenneath Coal, to per cent.

Barry Railway, 10 per cent.

Caledonian Bank, 8 per cent.

Great Southern and Western (Ireland), 5½ per cent.

Lima Railways, 4s. per share.

Manchester Trust, 5 per cent.

Preston Banking, 15 per cent.

Scottigh Reversionary, 6 per cent.

MINING IN CORNWALL

Scottish Reversionary, 6 per cent. Bessemer and Co., 10 per cent. Grayson, Lowood, and Co., 6s. per share.

AND DEVON: NOTES ON WESTERN MINING, EDITORIAL AND OTHERWISE.

The slight revival of last week has been succeeded by a relapse, and the share market has now resumed its normal condition of utter stagnation. Absolutely no business is being done, holders not being desirous of selling at present rates, while on the other hand the prices ruling do not tempt speculators to increase their liabilities in view of the present uncertain outlook with regard to the tin market. The quotations published are merely popular, and are likely to remain as opending, an inversement in nominal, and are likely to remain so pending an improvement in the price of metal. Not since 1878 have affairs presented a gloomer aspect. But things mended then, and it is yet too early to despair of the future of Cornish mining, and to set about writing the epitaph of the time-honoured industry.

ONE patch of blue in the long overcast firmament has at all events being visible during the past week. A mine which in these times can show a profit of nearly £2000, and give a dividend of 5s. per share to the adventurers, must be pronounced phenomenally prosperous, and the adventurers of Wheal Grenville have the satisfaction of knowing that they have not achieved a greater measure of success than they have deserved. They are now reaping the fruits of the wise and far-sighted policy, which was, after careful consideration, adopted some years ago, and but for which Wheal Grenville would be no better off than and but for which Wheal Grenville would be no better on than some of her near neighbours. Had as much forethought and resource been displayed by the executives of some other mines in the county as have been shown at Wheal Grenville, the industry might be in a healthier condition, in spite of the unprecedented lowness of the price of tin. The shareholders paid graceful and well earned tribute to Mr. Goold, the Chairman, in voting him an address in acknowledgment of his services. He is a model of what an adventurer should be, and a shrewder man of business never presided at a mine account.

MB. BOLITHO, M.P., to whom it fell to make the presentation, made one suggestion in the course of his speech, which was well worth the attention of mine managers generally. He expressed the opinion that it would be exceedingly wise if the expressed the opinion that it would be exceedingly wise if the people of the district "would recognise that water troubles were very grievous troubles, and ought to be looked at from a very broad and comprehensive point of view; that there ought to be a system of give and take; that people should not rely entirely on the efficacy of their own appliances, but that mining men should meet and discuss matters." So much friction and inconvenience have been caused in the immediate neighbourhood where these words were uttered, that it is to be hoped they will have some practical result, and that an attempt, at all events, will be made to give effect to Mr. Bolitho's suggestion that the cost of draining the water might be apportioned over that the cost of draining the water might be apportioned over a

THE call of 3a. per share at the meeting last week, must cause Blue Hills to be reckened among the unfortunately not too large number of mines with fair prospects. At the next meeting it is confidently believed that the adventurers will have a far more satisfactory statement of accounts laid before them, as a substantial increase in the returns of is looked for.

Ir is said that the agents and other officials of both Carn Brea and East Pool have voluntarily offered to accept a reduc-tion of salaries during the present depression, and that the offers have been accepted by the respective committees. While the self-sacrificing spirit displayed by the agents is worthy of all praise, we are not quite satisfied that the committees have acted in the best interests of the shareholders in availing them-acted in the best interests of the shareholders in availing themselves of it. The anxieties and responsibilities of agents and other officials are greater in times of depression than in times of prosperity, and the saving effected is a trifling consideration in large mines such as East Pool and Carn Bres. Such a policy savours rather too much of cheeseparing and proverbial niggardliness in the matter of a ha'porth of tar.

THE EDITOR'S LETTER BOX

ado seet necessarily andorse, the opinions of correspondents. All munications must be accompanied by the names and addresses of the see

THE CYANIDE CASE.

TO THE EDITOR OF "THE MINING JOURNAL,"

SIE,—Permit me to draw your attention to an error of dates in your report of my evidence. It is reported that in 1855 I was in Melbourne, &c., &c.; it should have read, 1885. In 1355 my existence was but a bare possibility.—Yours truly.

CLAUDE VAUTIN.

42, Old Broad-street, London, July 30, 1894. [This was manifestly a typographical error.—ED. M.J.]

THE NEW SHAFT AT DOLCOATH.

TO THE EDITOR OF "THE MINING JOURNAL."

Surely the reasons in favour of a new shaft at Dolcoath are sufficiently strong to dispel any doubts which exist as to its advisability. The committee have already given the matter their consideration, and it may be taken for granted that they will eventually recommend the shareholders to consent to its will eventually recommend the shareholders to consent to its construction. In view of the discussion which took place at the last meeting, something more practicable may be anticipated at the next meeting, as undoubtedly further deliberations, guided by the practical advice of Captain Josiah Thomas, will convince the committee of the infinite importance of commencing operations as speedily as possible. Mr. M. H. Williams apparently thought the present an inopportune moment for carrying into effect this new shaft scheme, but it can easily be proved that, even with the existing price of tin, if Dolcoath had a capacious vertical shaft, fully equipped with modern hoisting and pumping machinery, magnificent profits would be realised. The shareholders would most decidedly be justified in spending £60,000 or more in a new shaft, and in foregoing all dividends for three or four years to receive at the end of that period largely increased dividends.

The reasons for sinking a new shaft are manifold:—

The reasons for sinking a new shaft are manifold:—

1. Economy in Winding.—With a good modern winding engine, hoisting through a vertical shaft, increased speed, increased returns, less friction, less wear and tear, less time lost, fewer delays, and less fuel consumed would be the results.

2. Economy in Pumping.—The same arguments apply, and the water would be pumped for half the cost. Moreover, there would be an absence of the vexatious delays owing to "runs" and "chokes," of which so much has been heard lately, and which have been the cause of so much loss to both shareholders and employees. Besides, the numerous delays which must necessarily occur now in sending down timber and nitwork would be sarily occur now in sending down timber and pitwork would be avoided.

sarrly occur now in sending down timber and pitwork would be avoided.

3. Economy in Time.—It is absolutely imperative to get the men to their work as soon as possible. At present nearly an hour is occupied in reaching the rich bottom levels of Dolcoath, whereas, with a new shaft and good hoisting machinery, a few minutes would suffice to convey the men to their posts.

All these points might be very greatly emphasised and enlarged upon, and carefully prepared figures might be given to prove the arguments adduced; but no doubt this is sufficient to appeal to all practical men. Considering the number of mining men in Cornwall, it seems strange that so little has hitherto been heard about this important matter. Captain Bishop remarked at last Monday's meeting of the Mining Association and Institute of Cornwall that Cornishmen are ready to act as soon as they see the practicability and importance of any scheme. It is to be hoped it will prove true in this case.—Yours faithfully, Camborne, July 31st, 1894.

CORNISH MINING.

TO THE EDITOR OF " THE MINING JOURNAL."

SIR,-Much has been written, more has been said, about the

Sin,—Much has been written, more has been said, about the seemingly declension of Cornish mining. Judging from the present appearance of things, one may reasonably conclude that the voice of success is silent, and that of depression is heard. This state of things, we are glad to say, has not come about because Cornwall is incapable of yielding a sufficient supply of mineral for her prosperity. No, no! Cornwall is quite capable of yielding a supply far beyond what she has hitherto done. Cornwall, if properly worked, and her mines properly managed, can be made one of the most prosperous spots under the sun.

But how many instances of misplanting and mismanagement can be seen throughout the whole country, which, to a certain extent, is the cause of the present depression. Instances of misplanting are to be seen where engine houses have been eracted, and all necessary machinery provided equal to the development of a large mine, on very insignificant veins of tin altogether away from the metalliferous district, and immediately the mines, if I may so term them, become in working order the veins die out, and they are abandoned, to the great annoyance, disadvantage, and loss of the shareholders. Such instances are numerous.

With regard to mismanagement of mines.

With regard to mismanagement of mines. Instances are also to be seen where mines have been planted in very good positions and where great success might reasonably have been expected, but through mismanagement these mines have also been

I do not wonder that the outside capitalists give us the cold

I do not wonder that the outside capitalists give us the cold shoulder, and show some amount of uninterestedness in Cornish mining. A child who has burnt his fingers will shun the fire. Such a state of things need not exist. Cornwall is favoured with part of one of those mineral belts which, I am strongly convinced, encircle the globe, running parallel with the lines of latitude, and at an equal distance from each other. I cannot conceive of any body of matter being formed without these mineral belts. Geologists may tell us these lodes or belts are "secondary formations," and have been subsequently filled from the surface; or that the one has been thrown up into them by "volcanic action," or that it has been drawn into them sideways by "electricity," having been "held in solution" in the adjoining rock, &c. We argue such is not the ease, but the whole is a contemtricity," having been "held in solution in the whole is a contemporaneous creation. Necessarily so; for in these belts may be found the very cause or subsistance of Sir Isaac Newton's law of gravitation. Mineral, as can be easily proved, possesses the greatest power of attraction in the material universe, and can a body of matter be formed without these laws?

These belts, as far as I can discover, have an underlay to the

centre—north and south—respectively at different degrees, varying according to the distance from the equator. I would like to argue these points at greater length, but I must not intrude on your most invaluable space. Many forcible arguments in favour of the above doctrine are reserved. Hence we see that mining should no longer be a speculation, but be carried on by certain definite rules and regulations, according to the

Toping the time is not far distant when the capitalist and labourer will work unitedly for the success and development of the chief industry of the county.-Yours faithfully,

Menherion, near Redruth, Cornwell, August 1st, 1894.

THE PARC LEAD AND ZINC MINING COMPANY, LIMITED.

TO THE EDITOR OF "THE MINING JOURNAL."

Six,—At the present, when home mining appears at its lowest ebb, it may be interesting to many of your readers to know that although the mines of this district are nearly all closed the above-named mining company has been vigorously at work during the past 12 months in opening up the resources of the property for lead and zinc ores, and in the erection of modern dressing plant for the reduction and concentration of their ores. dressing plant for the reduction and concentration of their ores. They will soon be in a position to make regular returns, and it is reasonably believed that they will be able to make handsome profits, even at present low prices.

A few years since I endeavoured to show, through the medium of your valuable.

A few years since I endeavoured to snow, through the medium of your valuable Journal, that if the mines of this district were legitimately and honestly worked, and furnished with improved appliances, they could be made to compete with the world in the production of cheap lead and zinc ores, and that the then downward tendency of the markets, caused by foreign production, was not altogether an unmixed evil, but rather a blessing in district or the long as the miner got an inflated price for auction, was not altogether an unmixed evil, but rather a bess-ing in disguise; for so long as the miner got an inflated price for his ore, and the share market ruled at fabulous prices, there was little or no attempt to improve the system of home mining. But now, when everything has receded to bedrock values, is the time to reconstruct and work such mines as this district produces

on sounder and more scientific lines.

This mine was worked hundreds of years ago, and was prolific This mine was worked hundreds of years ago, and was prolific in its yield of lead ores, some of which, history states, was sold as low as £3 per ton; and history often repeats itself. Most of the richest mines of Cardiganshire and of North Wales owe their riches to a great depression in the price of lead from 50 to 60 years since, which caused their owners to use more energy and economy in working by adit levels, &c., which resulted in some instances—such as the Lisburne Mines and others—in 40 years of prosperity, and we appear at the present time to be at the commencement of a similar epoch.

We have the mines; we have the mineral; and we have the appliances to make them remunerative; but we have foreign competition, and this was precisely the position which our fore-

appliances to make them remunerative; but we have foreign competition, and this was precisely the position which our foreign there held, and overcame—turning what was called ruin into prosperity. Why should we not do so in the present day, seeing we have so many advantages in modern improvement over them? I shall refer to this again next week, with some description of the mines.—Yours faithfully,

Charles Kneebone.

THE METAL MARKETS.

LONDON METAL MARKET.

THE METAL MARKET-LONDON, AUGUST 3.

Copper. THE chief feature of this week's market has been the unexpected position of the statistics, as with nearly the largest American shipments on record, we have still a decrease of 300 tons in the visible supplies. This, together with somewhat more reassuring news from America with regard to the Tariff Bill, had a stimulating effect on the market towards the end of the week, a stimulating effect on the market towards the end of the week, and although speculative purchases were very scant during the first four days, there was a good speculative demand on Friday morning, whilst there is also more investment on the part of consumers. From Liverpool it is reported that negotiations for a renewal of the agreement between American and European producers to reduce and restrict their production are proceeding, and a favourable issue is considered probable. G.M.B.'s opened decidedly dull, and about 250 tons changed hands at £38 12s. 6d. and £38 11s. 3d. three months, and £38 2s. 6d. s.c. On Tuesday we dull, and about 250 tons changed hands at £38 12s. 6d. and £38 11s. 3d. three months, and £38 2s. 6d. s.c. On Tuesday we closed just a shade firmer—viz., at £38 3s. 6d. s.c., after business at £38 1s. 3d., and there was rather less readiness to sell. The following day brought a further slight improvement in values, owing to the unexpected decrease in the visible supply alluded to above, and as shown in the statistics published on the statistics of the statis page 855. The upward tendency continued on Thursday, when s.c. changed hands at £38 7s. 6d. and £38 8s. 9d., and three months at £38 13s. 9d. up to £38 16s. 3d., whilst this morning's exchange was quite brisk with business up to £38 15s. for early prompts. The market closed this morning, to reopen on Tuesday next. The tone is strong, and values now stand at £38 13s. 9d. to £38 16s. 3d. s.c., and £39 2s. 6d. to £39 3s. 9d. three months. In furnace material 6s. 7\frac{1}{2}d. has been paid for Portuguese, and 7s. for Mexican ore.

Tin

was a very quiet market at the opening, the speculative element being inactive. Spot straits was done at £65 17s. 6d., and three months at £66 10s., the day's turnover amounting to about 60 tons. Three months was done at £66 5s., and then at £66 7s. 6d. on Tuesday, when 130 tons changed hands. The course of business on Wednesday was very dull, and values declined still further, closing with s.c. at £65 7s. 6d., and three months at £65 17s. 6d. closing with s.c. at £65 7s. 6d., and three months at £65 17s. 6d. Yesterday, the downward movement made fresh progress, spot being done as low as £65 2s. 6d. This morning we opened with a recovery of 2s. 6d., £65 5s. being paid for s.c. Straits, and then £65 7s. 6d. The close is firm at £65 7s. 6d. buyers s.c., and £65 15s. to £65 17s. 6d. three months. From the statistics printed in another part of this issue, it will be seen that there is printed in another part of this issue, it will be seen that there is a large increase in the European visible supply for July, vis., about 1500 tons. In the Dutch market Billiton opened at fl 39% s.c. and fl 40% three months, and closes at fl 39% and fl 39%, respectively. In the Dutch markets large transactions, as well respectively. In the Dutch markets large transactions, as well in Billiton as in Straits, have again taken place, but at some what lower rates These two brands were sold down to 39\frac{1}{2} fl. for spot, and 39\frac{1}{4} fl. for distant; close to-day is rather steader, with buyers at 39\frac{1}{4} fl. for spot, and 39\frac{1}{4} fl. for distant; fow sellers at about \frac{1}{4} fl. higher. Banka remained steady, and some changed hands at 40 fl. and 40\frac{1}{4} fl.; there are further buyers at

Pig Iron.

In the Glasgow market there has been a gradually improving business as regards values, which rose during Monday to Wednesday from 41s. 10½d. to 42s. 1d. Yesterday's transactions resulted in an advance of id., and to-day the market closes quiet at 42s. buyers, with hematite at 43s. 8d. and Cleveland at 35s. 4d. Scotch shipments last week were 2807 tons, or a decrease of 3695 tons compared with those of last year same

has made a considerable recovery this week, soft foreign having

realised up to £9 11s. 3d. At the close the feeling is firmer again, and the final quotations are £9 11s. 3d. soft foreign, and £9 12s. 6d. to £9 15s. English.

Spelter.
This article has again settled down into an inanimate condition, consumers taking very little interest in it at present. The close is dull at £15 10s. ordinaries, and £15 12s. 6d. specials.

Antimony is quiet at £32.

Quicksilver.

There is nothing new to report, and values are unchanged, viz., at £6 firsts and £5 17s. 6d. seconds.

The following are to-night's (August 3) prices of metals:-Copper tubes, seamless ... Alloys.

Tase prices of tiaplates are 1.0.0. at Sources: at Libergrow as Prices of tiaplates are 1.0.0. at Sources: at Libergrow as Prices are 1.0.0. at Sources: a Libergrow as Prices are 1.0.0. at Sources: Ship plates, initial sering ... nominal \$80.00 cast ... nominal \$80.00 cast ... nominal \$80.00 cast ... Rails at works, according to section Load. Haiss Load.

Inglish pig, common ...

L.B. ...

, sheet and bar ...

pipe ...

red ...

white ...

patent shot ...

Spelter.

Silesian ordinary brands special brands special brands Sengish Swansea Sheet Zinc Sengish Swansea Sheet Zinc Sengish Swansea Sengish Swansea Sengish Swansea Sengish Swansea Sengish Swansea Sengish Sengish Swansea Sengish S ... <u>=</u> Antimony. Antimony Quicksilver. Nickel.

St. John Del Rey Mining Company.

... 0 1 6% ... 0 1 7%

98-99 per cent. guaranteed ...

In letters just received, dated Morro Velho, July 5, Mr. Chalmers expresses great regret and disappointment at the delay in starting the crushing mills. He explains at length the difficulties and hindrances that have arisen through cases containing small but necessary parts of the plant going astray on the railway through the confusion following the revolt, and the adjustment of details of the machinery, small in themselves, but of sufficient importance to delay the successfuln starting of so large an amount of machinery. There was nothing, however, that he was unable to deal with, and the directors are satisfied that the further delay is from circumstances which he could not possibly was unable to deal with, and the directors are satisfied that the further delay is from circumstances which he could not possibly foresee or control; and they expect within a very short period to hear that the stamps are in successful operation. During June the preparations for raising the mineral in the "D" (hauling) shaft and conveying it to the mills were completed, and a large amount of detail in the "C" shaft was carried through. In a telegram lately received, Mr. Chalmers informs the board that

you missing packages have been found.

Inspection of Welsh Collieries.—Mr. D. A. Thomas on Thursday, in the House of Commons, asked the Secretary of State for the Home Department whether he had yet received a communication from the Merthyr Valley colliery workmen in favour of the appointment of practical miners as sub-assistant inspectors of mines; whether his attention had been called to the recommendation of the coroner's jury on the Cultynydd Colliery explosion in favour of more frequent inspections of Colliery explosion in favour of more frequent inspections of mines; and whether he would reconsider his decision and appoint persons from the ranks of the workmen as sub-assistant inspectors persons from the ranks of the workmen as sub-assistant inspectors of coal mines, as he had recently done for the Merionethahire quarries.—Mr. Asquith: The answer to the first two paragraphs is in the affirmative. I have recently appointed two men of practical experience as workmen to be assistant inspectors of quarries and metalliferous mines. This is as far as I can go in the present year, nor can I give any pledge as to the future, except that I will give full consideration to these and other representations in the same sonse.

SARDWELL PARK COLLIERY COMPANY,—The annual meeting of the Sandwell Park Colliery COMPANY,—The annual meeting of

SANDWELL PARK COLLIERY COMPARY.—The annual meeting of the Sandwell Park Colliery Company was held on Wednesday afternoon at the Grand Hotel, Birmingham; Mr. John Field (chairman) presided. The proceedings were private, and the directors' report was marked "private and confidential." It is understood that the directors congratulated the shareholders upon having passed through a very prosperous year, the great coal strike in the autumn last year having increased the demand for fuel at the Sandwell Colliery, which was working under the South Staffordhire shifter which which was working under the South Staffordshire sliding see arrangement, and also caused an advance in prices. The profits exceeded those of the previous year, and the directors recommended the payment of a dividend of 10 per cent. for the half-year with a the payment of a dividend of 10 per cent. for the half-year with a bonus of 5 per cent. for the year, besides adding to the reserve fund and carrying forward a substantial balance.—The Chairman reviewed the progress which the company had made, and expressed his satisfaction at the results of the year's trading. He moved the adoption of the report and declaration of the dividend.—The resolution was carried unanimously, and, the retiring directors having been re-elected and other formal business transacted, the proceedings concluded.

THE JOURNAL" MINING

| | | | В | RITISH | MINE | 8. | | 115 | THE | | | E | UROPEAN | MIN V | VES. | AND HE | |
|--|--|-----------------------------------|----------------------------------|--|---|--|--|---|---|---|--|--------------------------------|---|---|--|---|---|
| Name. | Closing Price, Aug. 3, 1894 | Closing e, 27. 1894. | Par. | Latest Dividend | Called up Per Share. | Amount of Stock or No. of Shares Issued. | Situation of Mine. | Head Office | Name. | Closing Price, Aug. 3, 1894, | Closing Price. July 27, 1894. | Par. | Latest Dividend. | Called up per Share. | Amount of Stock or No. of Shares Issued. | Situation of Mine, | Head Office. |
| tlas | 5/- 10/- | 7/6 | 2 | - 2/- May,'81 | £ s. d. 1 0 0 5 12 8 51 4 6 | 12,000 | Devon | Camborne. | tlamillos | 36 56 0 36 536 536 34 56 | 54 36 536 | & a. 2 0 1 0 1 0 | -/3 Sept. '92 1/- May '93 42½ Feb. '94 | 2 0 0 1 0 0 1 9 0 | 35,000 150,047 55,200 | Spain Servia Spain | . 4, Tokenho. Bidgs |
| orn Frea Took's Kitchen T | 1 1½ 5½ 6 3/- 5/- | 834 834 8/- | : | 2/6 Dec., '93 | 21 12 5 35 15 10 | 1,880 6,000 4,900 | Cornwall | St. Just. Carn Brea. Camborne. | English Cr. Spelter FortunaL. LibiolaC. LinaresL. | 3 3½ 2¾ 3 | 536 536 58 15/- 336 3 | 1 0 2 0 5 0 3 0 | 57 Dec. '92 -/6 Sept. '92 5/- Mar. '94 4/- May.'94 | 1 0 0 2 0 0 5 0 0 3 0 0 | 55,200 84,000 25,000 50,400 14,998 | Spain | 6, Queen-street-pl Dashwood Ho., E |
| erwentwatr.CLZ evon Gt Cons.CA | 22/6 27/6 | 27/6 | 1 0 5 0 | 5% May, '88 | 1 0 0 2 0 0 | 51,988 10,050 10,240 | Cumberland | 7. Angel-court E.C Manchester. 3. Finebury-circus. | Marbella | 2½ 2½ 2½ 1½ | 236 236 2/9 | 10 0 5 0 5 0 3 0 | 8/- Mar. '93 2/- May. '94 | 10 0 0 5 0 0 0 4 6 3 0 0 | 25,000 185,172 117,240 67,809 | Spain | . 78, Queen Victoria- 87, Cannon-street 6A, Austin Friars. |
| olcoath 7 rakewalls CTM setGrassingtonL | 6134 6234 | 6334 | 0 5 | 12/6 Apr. '94 | 9 12 6 0 2 0 | 4,700 61,856 19,905 | Cornwall Torkshire | Dashwood Rouse. Palmerston-building | Pestarena | 103 105 101 103 | 1218/s 104 103 | 20 0 10 0 100 0 100 C | 11/5Dec.'93 7/- May,'94 67 July, '94 5% July, '94 | 20 0 0 10 0 0 100 0 0 100 0 0 | 14,000 325,000 £1892,740 £1024,860 | Spain | 30, St. Swithin's-l 30, St. Swithin's-l 30, St. Swithin's-l |
| ast Pool | 634 7 1 2 1/3 1/9 | 736 | 2 10 4 0 1 0 | 1/6 June,'94 5/- Apr., '92 -/6 June '89 2/- June, '94 | 0 9 9 2 7 0 4 0 0 0 19 0 | 12,000 15,000 32,000 | Devon | Illogan, 2º, Great St. Helens Douglas, Isl of Man Newcastle. | West Prus Pre.pref | - | 101 7/- 434 | 100 C 1 0 2 0 10 0 | 5 p.c. July, 94 1234 % Mar. '94 8 % June '94 8 % June, '94 | 0 19 0 2 0 0 10 0 0 | 2587.080 95,000 625.000 365 | Spain | 120, Bishopsgt-st. Glasgow. Walbrook Ho., E |
| alkyn Lexworthy T le of Man L llifreth T | 2% 3 | 23% ad | 1 0 5 0 | 5/6 Sep. '93 2/- July,'94 3/- May, '92 | 1 0 0 1 0 0 5 0 0 6 11 6 1 0 0 | 10,000 14,634 14,000 6,000 15,919 | Flintshire Devon Isle of Man Cornwall Cardiganshire | Chester. 5. Queen-street-place Chester. Truro. | West Prussian Pre. West Prussian Or. WohlfahrtL WohlfahrtL | = | = | 10 0 10 0 1 0 1 0 | 8% June, '94 8% June, '94 3% June, '94 3% June, '94 | 10 0 0 10 0 0 1 0 0 0 10 0 | 5,450 14,050 99,634 9,090 | Germany Germany Prussia | Walhrook Ho., E. 17, Victoria-st., S |
| ngsideLB? ad HillsL rantCT reflT Dera (New)L | 12/8 17/6 | 17/6 | 5 0 | 3/- Sep. '92 2/6 July, '94 1/3 Nov., '91 5/6 Mar. '90 | 6 0 0 11 9 6 1 16 7 5 0 0 | 20,000 2,500 7,165 9,000 | Cornwall Wendron Denbighshire. | 6 Queen-street-place. 30, Finsbury-circus. Penzance. 3, Gt. Queen-st., S.W. Minera, N. Wales. | | - | NC | RTE | I AMERI | CAN | MINE | S. | |
| thdaTndie, LZ Balleswidd'n T CooksEitn, TC | -/8 1/- | 1/- | 1 0 | 6% Feb., '91 | 0 18 0 1 0 0 10 18 3 4 3 6 | 48,805 25,000 4,900 7,000 | Northumberld Cornwall Cornwall | Newcastle on-Tyne St.Clement's Ho.,E.C Camborne. Redruth. | Alaska MexicanG Alaska Treadwell G Almada and TS | 31/4 31/4 -/3 -/9 | 3½ -/9 | \$5 \$25 2/6 | 1/6 July, '94 | \$5 \$25 0 2 6 | 160,00G 200,000 351,008 | Alaska | 30, St. Swithin's- 30, St. Swithin's- 6, Queen-street-p |
| berro | 1/- 3/- 15/- 20/- 2/- 3/- 7/6 12/6 | 3/- 20/- 3/- 12/6 | 0 10 | 1/- Mar. '90 - 3/6 Apr. '93 | 7 4 6 3 7 9 0 8 3 17 17 7 | 10,665 18,000 94,287 6,123 | Cornwall Cornwall Cornwall | Liskeard, 37, Walbrook, 6, Draper's-gardens, 20, Great St. Helen, | American BelleS Anglo Mexican Arizona (Pref.) Cu Do. 10 % Deben. | 2/- 2/6 | 2/6 | 1 0 5 0 4 0 100 0 | -/6 Mar. '91 3/- Jan. '90 7% May '94 | 1 0 0 5 0 0 4 0 0 100 6 0 | 398,890 74,850 158,920 2,660 | Colorado Mexico Arisona Arisona | 25A, Old Broad-st 23, College Hill. 74, Geost., Edin |
| th Crofty TA | 1 1¾ 5/- 10/- 9¾ 10 | 10/- | : | 2/- Apr. '\$4 | 17 7 6 2 7 6 15 7 6 | 6,000 6,000 | Cornwall Cornwall | Pool, Cornwall. Redruth. Carn Brea. | Big Oreek Ay. | - | - | 1 0 | 1/- Dec. '91 -/6 May 90 | 1 00 | 50,000 | Nevada | 2, Pancras-lane, |
| t Frances T it Kitty T eal Agar TA | 7/- 20/- 50/- 536 536 136 136 | 30/- 55% 25/- | | 1/3 Oct. '90 2/6 May, '89 4/- Jan, '94 2/6 Aug. '88 | 1 10 0 16 0 7 1 2 0 23 5 2 | 6,000 6,144 6,000 6,000 | Durbam Cornwall Cornwall | 3, Lombard-court. Camborne. 37, Walbrook. Redruth. | Canadian Phos. P Chispas | Ξ | E | 1 0 1 0 1 0 | 3 % Feb. '93 | 1 0 0 1 0 0 1 0 0 | 73,334 211,510 112,491 300,000 | Mexico Colorado Nevada | 33, Broad-st. Av. |
| eal Rasset TC eal Friendly T eal Grenville T eal Kitty T | 20/- 25/- -/6 1/- 1514 1614 6/ 8/ | 25/- 1/- 161/4 8/- | | 10/- Apr.'88 5/- Apg. '94 3/- Mar. '88 | 12 9 6 0 12 9 18 8 0 4 5 6 | 6,144 10,000 6,000 8,590 | Cornwall Cornwall Cornwall | Redruth. 110, Cannon st., E.C. 7, Union-court, E.C. Truro. | Decatur | 18/6 19/6 | 19/6 | 1 0 1 0 1 0 | | 1 0 0 1 0 0 1 0 0 | 32,500 12,500 400,000 | Colorado Colorado Idaho | 35, Queen Victori 35, Queen Victori 6, Draper's-garde |
| eal Metal &F. T | M X | ATTA | N A | ND NEX | 0 13 9 | 10.784 | Cornwall | 79%, Gracechurch-st | ElkhornS EmmaS | 10/6 11/6 -/2 -/4 | 11/6 -/4 | 1 0 1 0 5 | -/9 July, '94 | 1 0 0 0 5 0 | 175,007 403,618 | Montana | Winchester Ho. |
| illes Gld Fld. | 2/6 3/6 16/3 18/9 | 3/8 18/9 | 1 0 1 | 1/- Apr. '94 | 1 0 0 1 0 0 1 0 0 | 80,307 | New Zealand N. S Wales | 3. Church Pas , E.C. 4-6, Throg. Avenue. | Flagstaff | = | = 7% | 1 0 1 0 1 0 8 0 | 6d May, 84 -/8 Dec. '88 15/- Apr. '94 | 0 18 3 1 0 0 0 19 6 8 0 0 | 240,000 134,000 98,185 27,469 | Utah | Suffolk House, E |
| ana (Went.) G ana (Went.) G to-Saxon G tralasian G tralian C | 1/- 1/6 | 1/9 | 1 0 1 0 0 0 | 2/- July, '89 -/6 Mar., '92 1/6 July '94 | 0 12 6 1 0 0 1 0 0 7 7 6 | 75,000 25,000 51,000 210,000 18,315 | N. S. Wales N. B. Wales Queensland Queensland | 5. Throg. Avenue. 5. Throg. Avenue. 4. Lombard-court. 6. Queen-st, place | Golden Gate | 7 73/2 7/- 8/- 5/- 6/- -/6 1/- | 8/- 6/- 1/- | 1 0 1 0 1 0 | = = = = = = = = = = = = = = = = = = = | 1 0 0 C 19 6 1 0 0 | 180,000 79,600 300,259 55,507 | California Montana Colorado | St. Stephens Cs. St. Stephens Cs. S. Draper's Gard |
| Bro. Hill Con. | 1/6 2/- 22/8 25/- 15/- 17/- -/8 1/- | 25/- | 1 0 | 1/- June, '91 1/- July '94 -/4 July, '94 | 1 0 C 0 17 6 1 0 0 | 537,138 1(3,000 480,000 80,098 | N. S. Wales N. S. Wales W. Australia | 15. Old Jewry Chbre, Winchester House. Hillgrove, N.S. Wales 2, Met. Ex. Buildings | Golden ValleyG HarquahalaG Holcomb Valley G IdahoGS Jackson Goldfields | 8/- 9/- xd -/4% -/7% 1/- 1/3 | | | -/9 June '94 | 1 0 0 0 5 0 0 4 8 0 5 0 | 300,000 540,000 143,439 408,635 | Arizona | 6. Drapar's Gard 14. Cornhill. E. |
| nie Dundee G o. Pref | 2/9 3/3 9/- 10/- | 3/6 | 1 0 2 0 | 2/- May, 94 -/3 July, '94 | 0 18 0 | 120,000 7,268 250,000 250,000 | New Zealand Queensland Queensland Queensland | 6, Gt. St. Helens' 3-5, Gracechurch-st 3-5, Gracechurch st. Charters Towers. | Jav Hawk G Kobinoor "B"GS La Plata S: Mald of Erin | 5/- 6/- | 6/6 | 1 0 0 5 | -/6 Dec. '92 -/8 June.'81 1/3 Oct. '82 | 1 0 0 1 0 0 0 4 3 1 0 0 | 285,000 112,901 405,000 575,000 | Colorado | Dashwood Hous |
| liant, St. Geo. Brok. Hill Ster Hill Prop. n. Hill P. Bl.10 | 14/- 16/- 3/6 4/6 236 236 | 13/- 4/8 211/18 | 0 10 5 0 9 8 | 5d July, 94 1/- July '94 1/- Feb. 94 | C 63 5 0 0 0 8 0 9 13 0 | 72,000 240,000 960,000 100,000 | Queensland N. S. Wales N. S. Wales N. S. Wales | Gracechurchest. Charters Towers. Abchurch Chambers Abchurch Chambers 117.Leadenhallst.ECI | Mammoth Gold Mesq. d'l Oro (P) G Mesq. d'l Oro (D) G Montana | -/3 -/6 34 1 34 34 12/6 13/8 | 76 1 36 14/6 | 1 0 5 0 5 0 | 5 % April '91 | 1 0 0 5 0 0 5 0 0 0 19 0 | 400,000 10,000 10,000 657,158 | Pinal Arizona. Mexico Mexico Montana | Dashwood Ho., Dashwood Ho., Gresham House, |
| n. Bill P. Bi.14 ringtonG ven's Cal ydon King Bik. | -/9 1/3 4/3 4/9 | 1/8 4/9 | 5 0 12/6 0 6 0 5 | -/3 June '94 | 5 0 0 0 12 6 0 4 8 0 5 0 | 10,000 100,007 100,000 80,000 | N. S. Wales Queensland Queensland N. Queensland | 117, Leadenhallst. EC 9, Tokenhouse Yard, 30-1, S. Swithin's-le, Leadenhall Blg, E.C. | New Colorado N.Consolidated SC N. Gold HillG New Guston8 | -/2 -/4 12/6 15/- | - -/4 17/- | 1 0 5 1 0 1 0 | 1/- Oct. '92 | 0 17 0 0 3 6 0 19 9 1 0 0 | 65,000 248,576 191,045 110,000 | Nevada N. Carolina Colorado | Abchurch Cham. 15, Angel-court, 15, George-st., E |
| nbrind (New)G PDawn B.&W.G P Dawn P. C. G debawkG | -/9 1/3 6/- 7/- 3/- 3/6 1/- 1/6 | 7/8 3/6 1/6 | 1 0 1 0 1 0 1 0 | 2/6 Dec, '87 -/6 Mar. 93 -/6 Apr. '92 | 1 0 0 1 0 0 1 0 0 0 19 3 | 184,890 498,400 490,000 120,000 | Queensland Queensland Queensland Victoria | Blomfield House E.C 3-5, Gracechurch st. Winchester Ho., E.C 31, Lombard-street. | New Hoover Hill G New London New Vancour. Coal Palmarejo GS Pinos Altos (Df) GS | 36 56 -/9 1/3 | - 56 1/3 | 0 10 2/5 1 0 1 0 | -/9 Dec. '85 | 0 10 0 0 2 6 1 0 0 1 0 0 | 120,000 327,816 215,000 418,888 | N. Carolina New Carolina Brit. Columbia Mexico | Langthorne Ho., 55, Bishopsgt. at 12, Old Jewry Ch 4, Copthall-build |
| & Aus Con. Cu & Aus 6 % Deb. eridge G lerick the Gt G | = | = 5 | 2 0 0 0 0 5 1 e | 6 % July, '94 | 1 17 6 50 0 0 0 5 0 1 0 0 | 70,000 700 324,290 125,000 | So. Australia So. Australia Queensland Victoria | 136. Palmerston-bids 136, Palmerston-bids 6-7. Queen-street-pl. St. George's House. | Pinos Aitos (Df) GS Do. 15 % Cum Pref Pittsbg Con. (N) G Poorman Con | 2/6 3/6 | 3/8 | 1 0 1 0 0 5 | -/6 Mar.' 90 1/6 Mar. '88 | 1 0 0 1 0 0 1 0 0 0 5 0 | 100,000 60,000 77,147 273,948 | Mexico Nevada Idaho | 110. Cannon-stre |
| den GateG rietvilleG oongaG | 1/8 2/- 1/3 1/9 1/- 1/6 | 1/8 | 1 0 0 10 1 0 0 10 | -/6 July, '90 | 0 19 6 0 10 0 1 0 0 0 10 0 | 225,000 150,000 146,330 500,000 | N. Zealand Queen sland Victoria Queen sland | 3-5, Queen-st, E.C. 9, Tokenhouse Yard 6-7, Queen-street-rl. 30, St. Swithin's-lane | Red Mountain S Richmond GSL Ruby | 8/3 8/9 7/- 9/-xd | 9/- 9/- xd | | 1/- Sep. '93 -/8 Apr. '94 | 1 0 0 5 0 0 0 5 0 2 0 0 | 46,686 54,000 221,371 122,500 | Nevada California | 22 St. Mary Axe |
| garilla | 1/- 1/6 2/6 3/- 1/6 2/- | - | 1 0 1 0 1 0 1 0 | -/6 Jan. '91 | 1 0 0 0 19 0 1 0 0 1 0 0 | 88,275 250,000 81,392 180,000 | So. Australia N. Zealand Queensland Victoria | 68, Coleman-street, 9, New Broad-street 4, Coleman-street. 32. Poultry, E.C. | Do. Plumas Eur. G SpringdaleG | 1/3 1/9 | 1/9 | 1 0 | -/9 Apr. '94 2d Mar., 94 1/3 Mar. '94 | 1 0 0 | 140,265 1,000,000 24,564 | Colorado | 5, Lawrence P. Hi |
| Is Day DawnG Tuya GS Iman G Leysbon G untain Maid G | 2/- 3/- -/6 1/- 1/- 2/- | 1/- | 1 0 1 0 1 0 1 0 0 10 | -/6 July '54 -/3 Jan., '54 -/6 Dec. '90 | 0 15 9 1 0 0 1 0 0 1 0 0 6 6 3 | 300,000 58,235 185,000 157,989 56,000 | Queensland N. S. Wales Queensland Queensland | 3. Gracechurch-st. 16. St. Helen's-place 3-5. Gracechurch-st. 7. Draper's-gardens Leadenhall Bidgs. | United Mexican S | | 1/8 H AN | D C | ENTRAL | AME | 906,654 | Mexico | 3, 46. 11.15 |
| mt Morgan G Shamrock GB mt Zeehan | 236 236 | 1/- | 1 0 1 0 1 0 1 0 1 0 | -/6 July '94 | 0 17 6 1 0 0 1 0 0 0 10 0 | 1,000,000 275,000 193,257 48,000 | Queensland Queensland Queensland Tasmania Gympie | 50, Lime-street, 9, Tokenhouse-yard. Mansion Ho, Cham. Queensland. | Angle-Chilian FtN Do. 8% RylstMB | 434 534 92 95 | 5 M | 10 0 | = | 10 0 0 | 35,000 £200,000 | Antofagasta | 123, Bishops,-st. |
| 7 N. E. Queen enixGold.PileG t PhillipG | 6/3 6/9 | 7/- | 1 0 2 10 0 5 0 8 | -/6 Apr., '54 -/3 Bept. '92 1/6 July '94 | 0 19 6 0 8 9 0 5 0 | 158,915 96,000 48,000 200,000 | Queensland Queensland Gympie Victoria | 30, 8t. Swithin's-la. 30, 8t Swithin's-ln. Gympie, Queensland 57, Moorgate-st., E.C. | Antio, (Pref.) G.S. Antioquia(ordiny) Callac BisG CamaronesC | -/9 1/3 | 1/3 | 1 0 1 0 1 0 2 0 | -/6 Mar. '90 | 1 0 0 1 0 0 1 0 0 0 0 0 | 22,823 42,453 316,248 87,000 | Colombia Venesuela Chili | 184, Gresham Ho 184, Gresham Ho 50, Old Broad-st |
| en's Bthdy Un ens. Smelting itish Australian burst | 1/4 1/4 1/4 | 15/16 | 1 0 1 6 0 10 | - 14-5d. May.'94 -/6 Mar. '92 | 0 10 0 1 0 0 1 0 0 0 10 0 | 75,000 36,244 200,800 150,000 | Victoria Queensland N.S. Wales Queensland | 7-8, Gt, Wnchster St. 9, Tokenhouse Yard Winchester Ho. E.C 9, Tokenhouse Yard | Oaratal | -/4 -/7 -/3 -/6 2% 3% | -/7% -/6 3% | 2/6 2 0 1 0 5 0 | 1/- Apr. 94 | 0 2 4 2 0 0 1 0 0 5 0 0 | 1,330,000 125,000 200,000 32,000 | Peru Colombia Chili | 57, Moorgate-st. 52. Leadenhall st 5, Copthall-bdgs. 12, King-st., Live |
| perarye Blue | Ξ. | - | 1 0 1 0 1 0 | -/3 July, '84 -/3 Aug. '84 | 1 0 0 1 0 0 1 0 0 | 125,990 35,000 53,000 144,000 | N. Zealand Australia Char, Towers | 8, Old Jewry, E.C. ?-5, Queen-st., E.C. Leadenhall Big. E.C. f, Crosby-square | Colombia | 12/- 13/- 19/16/11/16 xd | 13/6 111/16xd | 20 0 1 0 2 0 1 0 | 9/5 June '94 1/- April '94 1/6 June '94 | 20 0 0 1 0 0 2 0 0 1 0 0 | 75,000 100,000 71,359 | Venezuela Colombia Chili Colombia | Oludad, Bolivar. 10, Blomfield-stro Dashwood House Manchester. |
| tory | 5/- 7/- 1361 3/xd 3/- 4/- 7/- 9/- | 7/- 3/4 xd 4/- 9/- | 1 0 1 0 1 0 | -/8 Mar., '94 1/- June '94 6/- Jan. '93 | 0 5 0 1 0 0 1 0 0 | 200,000 150,000 350,000 150,000 | Queensland New Zealand N. S. Wales N. S. Wales | 32, Gresham-st., E.C. 11, Abchurch-in. E.C. 4-8, Throgmort. Av. 4-6, Throgmort. Av. | Glenrock | 3/8 4/6 12/6 17/6 20/- 22/- xd 1/6 2/- | 3/6 17/6 22/- xd 2/- | 1 0 1 0 1 0 | 9%d Feb, '94 1/3 June, '94 | 0 16 6 5 0 0 1 0 0 0 18 6 | 199,948 | Brazil | 24-5, Devonsh.Cs 8, Bishopegtsk, 184, Gresham Ho 3-5, Queen-street, |
| Argentine G Lustralian G.P. Lustralian G.P. Lan Montana | -/9 1/ 18/9 21/3 3/- 5/- | | 1 0 | 8d Aug., 94 5d Aug., 94 | 0 19 0 1 0 0 0 4 0 1 0 0 0 12 6 | 150,000 65,000 66,000 12,600 | Tasmania | 3-5, Queen-street. 28-29, B, Swithin's-In. 28-29, B.Swithin's-In 11, Queen Victoria st 13, Queen Victoria st | Glenrock (Pref.) Gravel | 4/8 5/€ 3/6 5/- | 5/6 5/- 163¾ foe | 1 0 | 3/9 Oct., '93 836 Z '91 | 0 16 0 0 19 6 1 0 0 5 0 0 0 2 0 | 16,232 100,000 130,000 320,000 105,234 | Argen.(& Ind) Colombia Honduras Bolivia Nicaragua | 3-5, Queen-street, 10, Blomfield-stre 11A, Unionet, Old B 10, Avnu. d Alms, I 139, Cannon-stree |
| | J | INDL | N | AND AS | | | | 10, Qui en 1 / / / / / / / / / / / / / / / / / / | Javali | 5 5¾ 10% 11% -/6 1/- | 536 1136 1/- | 5 0 5 0 | 8% Z '91 5/- Jan. '94 10/- Feb. '94 | 5 0 0 5 0 0 5 0 0 | 30,000 55,000 22,000 300,000 | Chili | 70%.Gracechurch 70, Gracechurch- Liverpool. 5, Copthall-build |
| Minor Pref. St. De. Ord aghat Mysore G | 7/- 8/- | = | 0 10 0 10 1 0 | Ξ | 0 10 0 0 9 0 0 17 C | 42,430 51,584 160,000 | Asia Minor Asia Minor India | 2, Metal Ex. Bidge. 2, Metal Ex. Bidge. 5-7, Queen-street-pl. | LomaG London NitN London Nit. (Pref.) Macate New Tamarugal N | 11/4 2 23/4 33/4 1/3 1/0 5/4 3/4 | 1% 3% 1/0 | 3 0 5 0 0 2 1 10 | 3/4% Nov. '88 5/- May, '84 2%p.c.July'94 | 5 0 0 5 0 0 0 2 0 1 10 0 | 10,000 22,000 200,000 130,000 | Chili | 9. Gracechurch-s 9. Gracechurch-s 11. Old Broad-st. |
| mpionReefG | 3/6 4/6 313/6 313/6 | 4/6 319/6 -/8 | 1 0 | 2/- Aug. '94 | 1 0 0 | 300,000 200,000 200,000 | IndiaIndia | Suffolk House, E.C. 6-7, Queen-street-pl Dashwood Ho., E.C. | Do. 8 % Cum Pref Do. 8 p.c. Debs Orita | 75 78 1/6 2/6 | 80 2/6 | 1 10 | 8 p.c. July '94 8 p.c. July '94 1/- April '89 | 1 10 0 20 0 0 1 0 0 0 18 6 | 80,000 | Tarapaca Colombia Brazil | 50. Lime-street, 50. Lime-street, 10. Blomfield-street, 8. Queen-street-p |
| våla Moyar G mmingå Mining id Flds Mysore G | 20/- 22/- | 2/- | 1 0 | | 1 0 0 1 7 6 | 200,000 | India India Ceylon | 5-7, Queen-stplace, 24, Nicholas-lane. 183, Gresham House. | Pac. & Jaspampa N Panulcillo | 3% 3% x,d 3% 3% 5/- 7/6 | 336 xd 336 5/10 | 5 C 2 0 5 O 3 O | 1/- Nov. '89 20 % Oct. '89 5% Mar. '92 6% Feb., 94 | 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 72,000 112,500 40,000 241,956 | Tarapaes Chili Venezuela | 3, Gracechurch-st 23, Grant St. Hele Liverpool. 38, Nicholas Lane |
| d Flds 81 m G derabad Dec mpinkote GdFd sore | 3/9 4/3 | 3/9 1 | 1 0 0 0 0 0 0 0 0 0 | 1/- July 72 | 1 0 0 0 10 0 0 0 3 6 | 150,000 115,000 885,473 | India | 6-7, Queen-street pl. 19, St. Swithin's-lane. 16, St. Helen's-place. 6-7, Queen-st:-place. | Quebrada | 50 55 5 534 103 105 20/- 22/- | 51/4 105 22/- | 8tk. 5 0 100 0 1 0 | 6 % Apr. '94 1 | 5 00 | 120,000 £475,000 272,435 | Venesuela Chili Chili Brasil Ohili | 38, Nicholas Lane 574, Old Broad-str 574, Old Broad-str 28, Tower-ohmbrs, 12, King-st., Live |
| y. Harnhalli G ysore Reefs G ysore West (N) G ysore W ynasd G | 1/6 2/- 11/- 12/- 7/6 8/6 8/6 7/6 | 27/3 2/3 13/- 9/- 3/6 | 1 0 | 2/- July, *94 | 0 18 0 0 18 0 0 18 0 0 18 0 | 100,000 134,788 127,408 | India India India | 2, East India Avenue 6-7, Queen-street-pl. Dashwood Ho., B.C. | San DonatoN Sán JorgeN San PabloN Santa BarbaraG Santa Blana | 11% 2 516 8 314 314 | 334 | 5 0 C 10 | 10/- May '94 7% % Apr., '94 1/3 Dec. '88 5/- Nov. '93 | 6 0 0 6 0 0 0 10 0 5 0 0 | 75,000 32,000 60,000 | Chili | 9, Gracechurch-st 3, Gracechurch-st Liverpool 3, Gracechurch-st |
| rbudda Coal &In ne Reefs | 34 34 2/- 2/6 1/6 2/- 30/- 32/6 | | 3 0 0 10 0 10 1 0 | 1/- Mar. '84 | 0 16 0 2 11 0 0 10 0 0 9 6 | 49,639 50,000 200,000 | IndiaIndia | 213, Gresham House 6-7, Queen-street-pl. | Santa Elena N Santa Rita N San Sebastian N Segovia G Secore Pref G | 3% 35% 3% 35% 1% 2% | 1½ 3% 2½ | 5 0 5 0 | 1/8 May 94 | 5 0 0 5 0 0 0 4 0 0 15 0 | 20,000 29,000 160,000 | Dolombia | Dashwood House, I Dashwood House, I 5, Copena'l-buildi |
| egem (Df.O.)C | | 3% xc | 1 0 | 4/6 July, '94 | 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 146 000 11 | milla. | 5-7, Queen-street-pl. 5-7, Queen-street-pl. 5-7, Queen-street-pl. 6-7, Queen-street-pl. Blomfield Ho., E.U. 4a, Jeffrey's eq., E.U. 6-7, Queen-street-rl. | Brown Ord C | - | = | 1 0 | 8% July '94 | 1 00 | 10,000 | Jolombia | 23, 8t. Swithin's l 23, 8t. Swithin's l 5, Copthall-buildi 18, Finshury-circu 18, Finshury-circu 18, Vanues 49, Quees Victoria 1, Gt, Winohester |
| th E, Mysore G | 1/8 5/3 | 1/2 1/3 | 0 4 | = | 0 3 9 | 134,623 | Malay Penin. | 4a, Jeffrey's sq., E.O. 6-7, Queen-street-;1, | Vic. & Altam.rs West Indian6 | 7 736 | 7% | 5 0 1 5 0 1 0 5 0 5 | = | 0 50 | 700,000 | enesuela | Broad-st. Avenue. |

"THE MINING JOURNAL" SHARE LIST (AFRICAN MINES).

| Name. | Closing Price. Aug. 3,1894 | Closing Price, July 27, 1894. | Par. | Latest Dividend. | Called up Per | Amount of Stock or No. of Shares Issued. | Situation of Mine. | Head Office. | Name. | Closing Price, Aug. 3, 1894 | Closing Price, July 27, 1894. | Par. | Latest Dividend. | Called up Per Share, | Amount of Stock or No. of Shares Issued. | | Head Office. |
|---|---|--|---|--|---|---|---|--|--|---|---|---|---|--|---|---|---|
| Africkauder G Agnes Block G Appantoo G Aurora G Aurora West, New G | 18/9 21/3 9/- 11/- 4/- 6/- 4/- 6/- | 21/3 11/- 6/- 6/- | £ s, 1 0 1 0 1 0 1 0 1 0 | 57 Mar, '93 57 Mar., '93 | # s. d. 1 0 0 1 0 0 1 0 0 1 0 0 | 40,000 78,507 71,000 65,000 80,000 \$20,000 | Transvaal Transvaal West Coast Witwatersrdt. Witwatersrdt. | 19, Bt. Swithin's lan. 54, Old Broad-street, 9, New Broad-street, 8, Old Jewry.? 1, Crosby Equare.; | Mashon, Central Matabeleland Metropolitan (N) G Meyer & CharlG Mines Trust | 5 514 | 11/3 5¼ ¾ 15/6 | 1 0 12/6 1 0 1 0 1 0 | 25 % June '94 3% May '94 | 2 . d. 1 0 0 0 12 6 1 0 0 1 0 0 1 0 0 | | Mashonaland Matabeleland Witwatersrdt. Witwatersrdt. So. Africa Witwatersrdt. | 8, Old Jewry, E.O. 73, Basinghall St. E.C. 1, Crosby Square. 1 Warnford-court. 1 130, Winchester He. Warnford-court. 1 |
| Balkis Eersteling Balkis Land | 1/- 1/6 -/9 1/- 14/6 15/6 2/9 3/3 25/6 25/6 | 1/6 1/- 15/6 3/- 24/6 6/6 | 0 10 1 0 1 0 0 10 1 0 | | 0 10 0 1 0 0 1 0 0 0 9 0 1 0 0 | 520,080 200,000 83,000 207,496 200,000 36,000 | Transvaal Transvaal Witwatersrdt. Witwatersrdt. De Kaap Bechuanaland Witwatersrdt. | 85. Gracechurch-st. 85. Gracechurch-st. Johannesburg. Warnford-court, †1 17. Basinghall-street 19. St.Swithin's-lane 9. King Willam st † | Modderfontein. G Montrose | 7/6 8/6 11/3 13/9 16/3 18/9 11/4 17/4 xd | 34 7/6 13/9 18/9 1% xd 11/16 | 1 0 1 0 1 0 1 0 1 0 | 3/- Feb. '95 -/4 May '90 2/6 July '91 10 7 June, '94 | 1 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 70,000 240,000 400,000 194,331 70,000 | De Kaap De Kaap B. E. Africa Namaqualand, Witwaterardt, Lydenburg | 8, Old Jewry. 1 Broad-street House, 34, Leadenhall-blds, 8, Old Jewry. B.C. 29-39, Holborn-viadt, |
| Black Reef (New) Block "B" Lang, Booysen Land Do, Pref Brit, S. A. Char Buffelsdoorn G Cape Copper C | 33/6 34/6 25/- 27/- | 8/- 7/- 32/- 30/- 13/xd | 1 0 1 0 1 0 1 0 2 0 | 8% War., 94 1/3 June '94 | 1 0 0 | 535,000 95,000 71,174 2,000,000 250,000 300,000 | Witwatersrdt. Transvaal Transvaal S. Africa Potchefstroom Cape Colony | 8, Princes-st., E.C., 8, Princes st., E.O., 7 4. Tokenhouse-blds. 19, St. Swithin's-lane 8, Old Jewry. 9, Queen-street-place. | New Clewer Estate New Cræsus | 3/6 4/6 11½ 11½ 4/3 4/9 | 4/6 | 1 0 1 0 1 0 1 0 1 0 1 | 5 % Aug. '92 5% Dec. '89 5% Mar., '94 20% July '94 | 1 0 0 7 0 0 1 0 0 10 0 0 1 0 0 | 195,000 65,300 560,250 100,000 100,000 230,000 | Langlaagte De Kaap Griqualand Transvaal Witwatersrdt. Witwatersrdt. | 4. Bishopagtst. Wt. 23. College Hills 110. Cannon-street. 5. Copthall-buildings 53. New Broad-street 2. Draper's-gardens. |
| Oen. Montrose G Champ d'Or G Champ d'Or. Deep G Oity and Suburb G Coetzeestroom G | 119/16 119/16 1 1/- 2/- 11/- 13/- 8/6 9/6 14/4 14/4 1/- 2/- | 136 10/- 1416 2/- | 2 0 1 0 1 0 1 0 5 | 1/3 June '94 | 2 C O O O O O O O O O O O O O O O O O O | 45,000 69,000 116,016 275,000 75,000 140,000 | Cape Colony Transvaal Witwatersrdt. Witwatersrdt. Witwatersrdt. De Kaap | 9 Queen-street-place 15, George st. Mn. Ho. 3, Old Jewry, E.O. Fox st., Johannesbrg 1, Crosby Square, I 105, Leadenhall-street | New Rietfontein G New S. Augustine D New Spes Bons | 76 -/9 -/6 -/9 4/- 6/- -/9 1/3 | 1 -/10 % 6/- 1/3 3/3 2% | 1 0 1 0 1 0 1 0 0 10 1 0 | 15% June '94 | 1 0 0 0 19 0 1 0 0 0 18 6 0 9 0 1 0 0 | 160,000 234,583 113,801 111,857 48,335 160,000 | Witwatersrdt Griqualand W Witwatersrdt E. CoastAfrics Transvaal Witwatersrdt. | Warnford-et., E.C. 30-1, St., Swithin*-In 24, N. John-et., L'pl. 31, Lombard-strees. 26, Budge-row, E.C. 1, Crosby-square. |
| Con, Bultfontein D Con. Deep Levels G Con, G. Fields S A Do. 5½% Deben Crown Reef G De Beers Consol, D Do. 5½% 1st Deb. | 234 236 9934 10034 834 834 1434 1436 | 27/-xd 1¾ 23/4 100 ½ 3½ xd 14¾ 103 | 1 0 1 0 5 C 1 0 5 0 | 5% Nov. '89 4/- June '94, 10% Nov. '93 5% July, '94 25% May '94 12/8 June '94 5%% Feb. '94 | 1 0 0 1 0 0 1 0 0 5 0 0 5 0 0 5 0 0 | 721,500 187,250 1,250,000 600,000 120,000 789,791 £1,875000 | Griqualand W Transvaal S. Africa S. Africa Witwatersrdt Transvaal Transvaal | 62, Lombard-st. 30, St. Swithin's-lane 8, Old Jewry, 8, Old Jewry, 23, Austin Friars.? 62, Lombard-street, 62, Lombard-street, | Nooitgedacht E. G Oceana Develpmnt Oceana Develpmnt Orange F.S.ED Orion | 19% 111/16 % dis par 3% 3% 1/6 2/- | 19/16 1/16/119 33/4 2/- 20/- | 1 0 1 0 1 0 1 0 1 0 1 0 | 25/- Nov.'89 12'4 Mar. 94 10% June'94 | 1 0 0 1 0 0 0 5 0 1 0 0 1 0 0 0 19 3 1 0 0 | 160,000 150,000 50,000 284,000 30,000 437,888 138,750 12,000 | Lydenburg Transvaal OrangeF.State Witwatersedt. Kimberley Transvaal Tweffontein | B. Old Jewry. 4. Sun Court, E.C. 4. Sun Court, E.C. 10, Moorgate-street. 13, Basinghall-street 113, Cannon-st., E.C. 29-30, Hol. Via., E.C. |
| Do. 51/8 Rul Ob. Durban Roodept, G East Rand | 1021/4 1031/4 51/4 51/4 xd 11/- 12/- 15/- 20/-pm 41/4 41/4 | 5¾ nd 12/- 22/6 pm 4¾ | 100 0 1 0 1 0 1 0 1 0 | 514 % Apr. '94 3/- June '94 10 % Jan. '89 1/- Dec. '93 25/- Feb. '94 | 1 00 4 | £720,100 £125,000 570,000 66,000 148,000 69,350 45,000 | Transvaal Witwatersrdt. Witwatersrdt. S. Africa Witwatersrdt. | 62, Lombard-street. 28, Leadenhall-bldge 170, Winchester-ho.) 28, Old Jewry, E.C. 30, S. Swithin's-in. 19, S. Swithin's-iv. 29, Holborn Viaduct. | Paerl Ophir | 1/- 2/- 16/3 18/9 14/- 15/- | 2/6 2/6 18/9 15/- 834 9/6 | 0 10 1 0 1 0 1 0 1 0 | 5p.c. Apr. '94 10p.c. Apr. 94 | 0 10 0 0 16 6 1 0 0 1 0 0 1 0 0 | 13,000 230,326 161,000 72,046 1,916,500 332,798 50,000 | 8. E. Africa Swazieland Potchefstroom Witwatersrdt, Witwatersrdt, Witwatersrdt, Transvaal | Cape Town. Broad St. Avenue. 6, Queen-street-place 19, Bury-st., E.C. 33, Cornhill, E.C. 59, Holborn Viaduct.; 29-30, Holborn Via. |
| Ferreira | 656 676 xd. 3/- 5/- 3 334 434 5 7/6 8/6 18/9 21/3 | 3 % 43% 9/- 21/3 | 1 0 1 0 1 0 1 0 1 0 | 100% June '94 = 20% Mar. '94 = | 1 00 | 105,000 265,000 187,500 150,000 112,750 100,000 | De Kaap Transvaal Witwatersrdt. Witwatersrdt. Witwatersrdt. Witwatersrdt. | 45-6, Leadenhall-st. 3°, St. Swithin's-lane 29 & 30, Hol, Viaduct Warnford-court, E.C. Warnford Court, E.C. Johannesburg. | Robinson | 213/16 213/16 2 23/1 28/- 29/- 2/6 3/- 7 74 | 6% 2% 2% 27/6xd 3/- 7% | 5 0 1 0 1 0 1 0 1 0 | 5% June '94 1/- July, '94 10% May '94 | 5 8 0 1 0 0 1 0 0 1 0 0 0 16 0 1 0 0 | \$43,750 100,000 93,000 614,450 625,000 85,000 | Transval Witwatersrdt, Witwatersrdt. Lydenburg Zoutpansberg. Witwatersrdt. | 19, Finabury circus, 55, Holborn Viaduct I Warnford-court, 1 1. Orosby-square, 1 85, Gracechurch-st, 4, Sun Court, E.O. 33, Cornbill. |
| Glencairn | 31/6 32/6 3/6 4/8 3/6 15/8 15/- 17/8 2/1½ 2/4½ 7/6 8/8 /9 1/3 | 33/6 4/6 15/16 15/- 2/456 8/6 | 1 0 1 0 1 0 0 4 1 0 0 5 | 15 % Dec.'89 | 1 0 0 0 10 0 1 0 0 1 0 0 0 4 0 1 0 0 | 200,000 130,000 600,000 200,000 400,600 150,000 500,000 | Witwatersrdt Transvaal 8. Africa Mashonaland Mosambique Witwatersrdt. Lydenburg | 2. Drapers-gardens. 46. Queen Victoria-st 8. Old Jewry. 19. St. Swithin's-in. 2. Tokenhouse Bidgs. 14. Throgmorten-st. 85. Gracechurch-st. | S.A. Gold Trust S. Simmer & Jack G Spitzkop (New) G Stanhope | 26/3 28/9 17/4 19/4 4/3 4/9 2 21/4 4/3 4/9 | 26/3 19/16 4/3 23/4 4/9 | 1 0 1 0 1 0 1 0 5 | 10% April '93 | 1 0 0 0 19 6 0 18 6 1 0 C | 220,000 120,000 99,070 34,000 220,000 96,000 150,000 | South Africa Witwatersett Lydenburg Witwatersett. Zoutpansberg. Witwatersett. Barberton | 8, Old Jewry. 31, Lombard-st., B.C., 15. Bishopsgt-st, Wt. 1. Crosby Square.? 3, Budge-row, B.C. 8, Old Jewry. 15, Angel-court, B.C. |
| Graskop | 6% 7 xd 2% 2% 4% 4% 1/- 2/- 3% 3% 5% 5% | 7 xd 23/4 43/ 2/- 33/4 53/4 | 1 0 1 0 1 0 | 12% X Nov., '93 30 X Aug. '94 30 Z June '94 | 1 0 0 1 0 0 1 0 0 1 0 0 | 105,700 100,000 195,000 57,404 21,000 30,000 100,000 | Transvaal De Kaap Witwatersrdt. De Kaap Witwatersrdt. Witwatersrdt. Witwatersrdt. Witwatersrdt. | 62. Lombard-street Warn ord-court. 1, Crosby Square. 11, Queen Viest. Johannesburg. 8, Old Jewry. 29, Holborn Viaduct [1] | Trans. Coal Trust Trans. Est. & Dev. Trans. Gold | 12/- 13/- 8/6 9/6 | 13/- 9/6 115/16 5/9 2/6 | 1 0 1 0 1 0 1 0 1 0 | 2% % May '94 1/- June '94 7% % May '94 | 1 0 0 1 0 0 1 0 0 1 0 0 0 15 0 1 0 0 | 439,965 285,700 250,000 79,915 169,999 26,000 | Witwatersrdt. Transvaai Transvaai Transvaai Witwatersrnt. | Broad-st, House, E.C. 76, Oid Broad-st, E.C. Suffolk House, E.C. Suffolk House, E.C. 33, Cornhill. Johannesburg. |
| Jumpers | 4 4% % % pm 6/6 7/6 19/6 111/6 1/- 1/6 4 4% 2% 2% | %14Pm 7/6 111/15 1/9 4% 23/4 | 1 0 1 0 1 0 1 0 1 0 3 0 1 0 | 1214 % June '94 5% Sept. '93 | 0 10 0 1 0 0 1 0 0 1 0 0 1 0 0 | 98,672 125,000 150,000 150,007 467,000 100,000 | Kimberley Kimberley Witwaterardt. Transvaal Witwaterardt, Witwaterardt, | 19, Finsbury circus. 2, Drapers-gardens. 8, Old Jewry. 110, Cannon-street. 59, Holborn Viaduet. 2, Drapers-gardens. | Turffontein Est | 3 1/4 3 1/4 | 16/3 12/6 21/3 33/4 | 1 0 1 0 1 0 1 0 1 0 1 0 1 0 | 2½ Jan. 94 2½ Jan. 94 — — | 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 | 40,007 45,000 100,000 99,610 108,000 132,000 190,000 | So, Africa Transvaal Witwatersrdt. Witwatersrdt. De Kaap Witwatersrdt. Gold Coast | 130. Winchester Ho. 110, Cannon-street 23, St. Swithin's-in. 1,Orosby-square, Portland House, E.C. 8, Old Jewry. 147, Cannon-street. |
| Lisbon-Berlyn G London & S. A. Ex. Luipaaris Viel Est Do. do do. Main Reef (New) G May ConsolG May Deep Level G | 1/9 2/3 1034 11 8/- 9/- 36 34 7/6 10/- 8/6 9/8 | 2/3 11 8/6 3/ 11/3 9/- 10/- | 2/6 0 10 1 0 1 0 1 0 1 0 | 3/- June '94 6% Mar, '90 | 0 10 0 1 0 0 0 10 0 0 10 0 1 0 0 1 0 0 | 887.233 100,000 319,003 25,000 300,600 430,000 146,000 | Lydenburg 8. Africa Witwatersrdt. Witwatersrdt. Witwatersrdt. Witwatersrdt. Witwatersrdt. | 110. Cannon-street. 19. Finabury-circus. Warnford-court. I 8. Old Jewry. 8. Old Jewry. 4. Lothbury. 33. Cornhill. E.C. 8. Old Jewry. E.C. | Wemmer | 22/- 23/- 2½ 2½ 6/- 7/- | 456 61/2 22/6 23/4 7/- | 1 0 1 0 1 0 1 0 1 0 1 0 | 10% Nov. '91 2/- Apr., '94 10% May '94 | 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 0 18 0 | 55,000 30,000 250,000 120,000 18,750 39,021 90,727 | Witwatersrdt. Mashonaland., Witwatersrdt. Witwatersrdt. Transvaal Transvaal Witwatersrdt. Transvaal | |

METAL TRADE STATISTICS.

JULY, 1894.

COPPER.

| (From | Messrs | Henry | R. | Merton | and | Co.'s | Circular | for | July. | 1894. |
|-------|--------|-------|----|--------|-----|-------|----------|-----|-------|-------|
| | | | | | | | | | | |

| | | | | | 318T JUL | Υ. |
|--|---|--|--|--|---|---|
| | July 31, 1894. | July 15, 1894. | June 30, 1894. | 1893. | 1892. | 1891. |
| STOCKS IN ENGLAND AND FRANCE: Liverpool and Swanses, Chili Bars | Tons. 33,746 930 197 6,677 5,090 | Tons. 32,416 980 79 6,364 4,975 | Tone. 32,438 930 79 6,157 5,119 | Tons. 30,304 94 76 4,781 5,780 4,848 | Tons. 30,361 663 417 10,545 7,945 5,167 | Tons. 17,492 389 22 11,731 8,418 16,580 |
| ADVIBED THOM CHILI by Mail and Cable, Fine Copper | 47,975 2,400 950 | 46,325 4,300 1,000 | 45,772 3,500 800 | 45,883 3,800 800 | 55,138 3,800 800 | 54,632 2,550 600 |
| | 51,325 | 51,625 | 50,072 | 50,483 | 19,738 | 57,782 |
| The state of the Paragraph C M III Is not a second | | | | Bat 10 P | | ATA A |

COMPARATIVE STATEMENT.

| | Stock in | | | - | | fo . | | - | | |
|---|--|---|--|--|---|--|---|---|---|--|
| _ | England and France and Affost there- to from Chili and Australia, | Price of G.M.B, | England and Rrance. | Ocher Engless Forts. | England of from Spain and Portugal (excluding Pyritea). | | Charters from Chiff to Europe, | Shipments fro | Total Suppl's. | 3 1 |
| Menth ending slat July 1894 Soft June 1994 Soft June 1994 Soft April 1994 Soft February 1994 Soft February 1994 Soft Soft Soft Soft Soft Soft Soft Soft | Tons. 51,525 60,072 47,580 46,808 4F,587 47,384 47,182 46,827 48,040 47,964 47,964 | £38 2 6 36 5 0 38 17 6 39 17 6 40 15 0 41 0 0 41 5 0 42 15 0 42 15 0 43 0 0 42 15 6 43 17 6 41 12 6 | Tons. 3,455 2,726 2,726 2,546 3,98 4,921 3,848 6,146 7,097 7,940 4,272 | Tons, 2,365 2,945 2,759 2,811 3,098 5,276 2,809 4,252 4,388 6,275 3,971 2,88 | Tons. 1,209 858 1,876 1,057 1,184 847 1,477 1,487 1,332 989 1,285 1,535 | Tops. 1,816 3,522 3,023 2,977 1,699 764 890 852 5,684 2,082 621 645 | Tons. 1,800 2,300 1,850 1,650 1,650 1,560 1,350 2,700 1,400 2,260 1,700 1,800 | Tons. \$50 \$50 \$50 \$50 \$50 \$50 \$50 \$50 \$50 \$50 | Tons. 11,195 13,601 12,936 12,654 10,575 10,385 11,947 13,639 19,406 20,663 16,087 10,946 | Tons. 9,942 10,509 12,162 12,445 11,342 10,173 12,090 13,371 20,613 20,613 13,462 |
| 1st July | 50,483 49,955 49,951 52,094 55,271 57,420 58,577 56,745 53,498 56,078 58,078 58,078 | 41 12 8 43 10 0 43 2 6 44 10 0 45 5 0 45 12 8 45 2 6 46 17 6 47 17 6 47 17 6 47 17 6 47 17 6 | 52,488 4,236 1,914 3,179 2,591 1,312 1,821 3,266 3,235 2,842 753 1,048 3,287 | 41,53E 2,412 2,310 997 906 687 632 488 542 623 850 535 324 | 15,216 1614 1,956 1,291 789 1,877 1,170 2,452 2,655 690 762 1,619 066 | 25,675 2,607 2,548 1,271 1,084 3,291 2,785 4,898 3,006 1,725 2,922 2,315 2,523 | 21,900 2,400 1,850 1,750 1,600 650 3,500 1,600 1,500 1,500 1,500 1,750 1,990 | 6,900 450 550 450 550 600 410 700 300 700 580 400 480 | 163,632 12,669 11,330 5,928 7,459 8,417 9,855 11,773 12,238 8,060 7,436 7,687 9,059 | 162,770 12,141 11,120 11,071 10,636 10,566 10,945 9,911 9,981 10,640 9,840 2,963 9,079 |
| lat July 1882 Oth June | 59,738 56,664 53,965 53,868 54,311 56,781 57,442 56,044 57,600 58,855 59,450 69,819 | 44 17 6 44 17 6 46 7 8 45 12 8 46 5 0 44 5 0 44 12 8 48 15 0 61 2 8 52 30 0 | 2,893 2,909 2,841 1,968 2,260 2,242 2,809 1,720 2,045 3,845 | 390 416 664 1,284 1,667 495 893 1,575 1,417 1,244 929 1,583 | 2,148 2,346 2,768 2,462 2,462 1,724 750 2,049 2,534 3,181 1,438 | 3,744 4,745 1,215 2,948 2,013 1,277 1,671 3,3(5 1,82b 4,893 1,975 2,962 | 2,200 1,600 2,150 1,800 1,800 1,700 2,000 1,525 1,200 2,050 2,050 2,050 2,050 2,050 2,050 | 650 300 500 100 306 309 350 600 400 800 706 330 | 12,023 12,315 9,618 10,242 10,002 8,068 7,898 10,449 8,571 10,998 11,780 11,780 | 8,880 9,676 9,521 10,725 22,472 8,739 6,450 12,015 90,788 30,633 31,951 9,899 |
| | 4 Year | ndlag Chi | 29,948 | 12,567 | 21,050 erican for a | 31,783 | 22,105 | b,368 | 123,740 | 121,704 |

TIN.

(From Messrs. A. Strauss and Co.'s Circular for July, 1894).

| | 30th June, 1894. | 31st July, 1894. | 31st July, 1893. | 31st July, 1692. |
|--|---------------------------------------|--|---------------------------------------|---------------------------------------|
| Straits and Australian spot | Tone, 6,862 622 2,970 450 | Tons. 7,409 758 3,245 768 | Tons. 732 1,290 1,685 552 | Tons. 1,664 586 2,600 770 |
| Banca, on Warrants Billiton, spot Ditto aftest Straits, spot in Holland | 10,904 780 1,902 917 672 | 12,200 1,200 1,823 790 545 | 4,259 803 335 1,210 130 | 5,620 1,384 964 913 231 |
| Total affoat for United States Estimated stock in America | 15,175 2,100 962 | 1,715 958 | 6,737 | 9,1,2 2,035 2,050 |
| Total | 18,177 | 29,309 | 14,947 | 14,197 |
| Prices of Straits and Australian | £89 0 C | £65 17 E | £83 0 0 | £96 5 0 |
| Deliveries during the menth in London Ditto ditto Holland | 1,395 785 | 1,025 | 2,046 373 | 1,063 611 |
| | 2,180 | 1,728 | 2,419 | 1,674 |

| erbments (| strong the | month from | n Straits to London | 999 | 499 | 700 | 999 | 991 | 2,250 | Tons |
|------------|------------|------------|-----------------------|------|--------|-----|------|-----|-------|------|
| 90 | ** | 60 | Australia to London | *** | *** | *** | 999 | 001 | 575 | 91 |
| 9-9 | ** | ** | London, Havre, and | Holl | and to | Ame | rioa | *** | 500 | |
| 99 | ** | 99 | Straits to America | 948 | *** | 900 | 1666 | *** | 1,100 | az |
| . ** | 99 | | Australia to America | | | | *** | *** | - | |
| | | | Straits to Gootle out | | | | | | 694 | |

| 770 141 126 CT1 836 | - | During 12 months ending July 31, 1894. | During 12 months ending July 31, 1893. | During 12 months ending July 31, 1892. | During 12 months ending July 51, 1891. | During 12 months ending July 31, 1890. |
|---|--|--|--|--|---|--|
| 045 045 011 091 040 040 040 | Shipments from Straits to London Shipments from Straits to America Shipments from Straits to Continent Ditto from Straits to Continent Ditto from Straits to Europe and America Shipments from Australia to London Shipments from Australia to America Deliveries of Thin in London and Holland Deliveries of Tin in London and Holland Ditto in London, Holland, France, and U.S. | 44,873 4,685 600 19,544 86,597 | 23,255 7,385 6,875 37,515 4,172 430 15,924 24,084 49,812 | 18,372 4,875 4,980 32,227 4,494 900 15,565 23,682 45,523 | 15,CS8 14,227 4,210 30,545 4,907 650 17,295 25,389 45,554 | 17,618 6,005 3,980 27,603 8,937 955 17,265 24,861 43,411 |

Banca in Trading Company's hands and affort, 5413 tons.

| PRICES; Straits and Australian, spok | 649 | sin | #45 | 13 | three mo | mths | 949 | Mus | 7 | |
|--------------------------------------|-----|-----|-----|----|----------|------|-----|-----|----|---|
| English Common ingets | 686 | 984 | 49 | | refined | 400 | 440 | 71 | 0 | 4 |
| | | | | | | | | | ** | |

PROVINCIAL SHARE MARKETS.

THE CORNISH MINE SHARE MARKET.

R. SAMUEL JOHN DAVEY, Dealer in Cornish Mine Share R. SABUEL JOHN DAVEY, Dealer in Cornish Mine Shares,
Redruth, Cornwall, reports under date of August 2 (4 o'clock)
as follows:—We have had a dull, inactive market this week,
with but very little alteration in prices. There is practically nothing
doing to-day. Following are quotations:—Blue Hills, \(\frac{1}{2}\) to \(\frac{1}{2}\); Cook's Kitchen, \(\frac{1}{2}\) to \(\frac{1}{2}\); Dolcoath, \((63\) to 6\(\frac{1}{2}\); East
Pool, 7 to 7\(\frac{1}{2}\); Killifreth, 2\(\frac{1}{2}\) to 3; South Condurrow, \(\frac{1}{2}\) to 1\(\frac{1}{2}\); South Wheal Frances, \(\frac{3}{2}\) to \(\frac{1}{2}\); Tincroft, 9\(\frac{3}{2}\) to
1\(\frac{1}{2}\); Wheal Basset, 1\(\frac{1}{2}\) to 1\(\frac{1}{2}\); Wheal Grenville, 16 to 16\(\frac{1}{2}\); Wheal
Kitty (St. Agnes), \(\frac{3}{2}\) to \(\frac{1}{2}\); Phearro, 1 to 1\(\frac{1}{2}\).

Mr. MURLARE WILLIAMS BANDEN. Mining and Assaving Offices.

Kitty (St. Agnes), \$\frac{1}{2}\$ to \$\frac{1}{2}\$; Folberro, 1 to \$1\frac{1}{2}\$.

Mr. MICHAEL WILLIAMS BAWDEN, Mining and Assaying Offices, Liskeard, Cornwall, writes (August 2) as follows:—The mining market shows a further depression on the heavy shipments for the past month, and unsatisfactory result of the sale of black tin on Tuesday at an average reduction of £1 a ton as compared with the last. Closing prices:—Blue Hills, 6s. to 7s. 6d.; Carn Brea, 6 to 6\frac{1}{4}\$; Cook's Kitchen, \$\frac{1}{4}\$ to \$\frac{3}{2}\$; Devon Consols, \$1\frac{1}{2}\$ to \$1\frac{1}{4}\$; Dolcoath, 62 to 62\frac{1}{2}\$; East Pool, 6\frac{3}{2}\$ to 7; Killifreth, 2\frac{1}{2}\$ to 2\frac{3}{2}\$; Levant, 5 to 5\frac{1}{2}\$; Phomix United, \$\frac{1}{4}\$ to \$\frac{3}{2}\$; South Crofty, 1 to \$1\frac{1}{2}\$; South Frances, \$\frac{1}{2}\$ to 2; West Kitty, 5\frac{1}{2}\$ to \$\frac{3}{2}\$; Wheal Agar, \$1\frac{1}{2}\$ to \$1\frac{1}{2}\$; Wheal Basset, \$1\frac{3}{2}\$ to \$2\$, c.p.; Wheal Grenville, \$1\frac{5}{2}\$ to \$1\frac{1}{2}\$, x.d.; Wheal Kitty, 6s. to 7s. 6d.

Messrs Abbott Ann Wickett Stock and Share Brokers and

Messrs. ABBOTT AND WICKETT, Stock and Share Brokers, and Mining Share Dealers, Redruth, write under date of Thursday, August 2:—The Cornish Share Market has continued in its former dull August 2:—The Cornish Share Market has continued in its former/dull condition, and changes in prices have been generally against holders, though the amount of business has been very small. At South Crofty meeting to-day a call of 5s. was made, which was more than the loss. The sales of tin were about 2 tons more than last account. Quotations herewith (four o'clock):—Blue Hills, \$\frac{1}{2}\$ to \$\frac{2}{3}\$; Cock's Kitchen, \$\frac{1}{2}\$ to \$\frac{1}{2}\$; Dolcoath, \$61\$ to \$63\$; East Pool, \$6\frac{1}{2}\$ to \$7\$; Killifreth, \$56s\$, to \$59s\$; Polberro, \$\frac{1}{2}\$ to \$1\$; South Condurrow, \$\frac{1}{2}\$ to \$\frac{2}{3}\$; South Crofty, \$1\$ to \$1\frac{1}{2}\$; West Kitty, \$5\frac{3}{2}\$ to \$5\frac{1}{2}\$; Wheal Agar, \$1\frac{3}{2}\$ to \$1\frac{3}{2}\$; Wheal Basset, \$1\frac{1}{2}\$ to \$2\$; Wheal Grenville, \$15\frac{3}{2}\$ to \$16\frac{1}{2}\$; Wheal Kitty, \$\frac{3}{2}\$ to \$2\$. Tin, £65\frac{1}{2}\$.

MANCHESTER.

MANCHESTER.

Messrs, Joseph R. and W. P. Baines, Stock and Share Brokers, Queen's Chambers, 7, Market-street, write, August 2, 1894 (noon):— The past week has been a very poor record of busines, the causes reducing the sterility being many. The present account, though a long one, is early interfered with by the Bank Holiday accentuating the already strong general holiday feeling existing, and the disturbing influences in Americans still keep their particular market dull, and sympathetically other markets also. Consols remain high, with rise of 3.16 on the week. Home Corporation Stocks continue to furnish numerous instances of improved values, with little or nothing on the other side to contradict them. This week the only exception to the rule of advance is Manchester Four per Cent., which is marked ½ down. Colonial Government Bonds, &c., are irregular, but balance of change is slightly on the side favourable to holders. Railway markets are contradictory. Home rails on some dividends, and rumours of dividends, quote better in most instances. Berwicks, Great Easterns, and Metropolitan Districts all mark a little lower, but the amount of fall is small in all cases. The principal advances are Great Western, 1½; London and North-Western, 1; Lancashire and Yorkshire, ½ to ½; and South-Eastern A, ½; besides a lot of others of small amount. In Canadians, Grand Trunk issues, in sympathy with Americans and on a poor traffic, are all down ease the Gridnary which are nuchanged. Pacificar on the contradict of the state of the same prophanged. Western, 1; Lancashire and Yorkshire, \(\frac{1}{2} \) to \(\frac{1}{2} \); and South-Eastern A, \(\frac{1}{2} \); besides a lot of others of small amount. In Canadians, Grand Trunk issues, in sympathy with Americans and on a poor traffic, are all down save the Ordinary, which are unchanged. Pacifics are put \(\frac{2}{3} \) down on the week. Americans have not fluctuated very widely as a general thing, and after oscillations, the balance of movement on the week is small, save for decline of \(\frac{2}{3} \). The balance, however, is all on the downward side, with the single exception of Ohio First, which are credited with rise of \(\frac{2}{3} \). In company with Union Pacific, Erics have come in for depreciation, and are \(\frac{2}{3} \) down, Milwaukees also receding \(\frac{2}{3} \); other declines being expressed in smaller fractions. In Mexican Rails, Ordinary are \(\frac{1}{2} \) lower, but First Preference are \(1 \frac{1}{3} \), and 'Second Preference \(\frac{1}{2} \) higher. Foreigners present a very irregular list of variations, these being just about divided between higher and lower in amounts ranging from \(\frac{1}{2} \) to either side, the only mark over the limit named being a rise of \(\frac{1}{2} \) in Italian Rentes. Miscellaneous classes are contradictory class against class, but in the several sections some distinct movements are noticeable. The business of the week is small herein also. of the week is small herein also.

business of the week is small herein also.

Banks, with but a straggling list of transactions, are lower where altered at all—viz., National Provincial \(\frac{1}{2}\), Imperial Ottoman \(\frac{1}{2}\), and Manchester and Salford \(\frac{1}{2}\).

INSURANCE.—Tone distinctly better as regards current quotations, but very little business going on. Palatines have been done a few times, and Equitable and Manchester Fires now and then. Commercial Union are 1, Liverpool and London and Globe 1, Royal \(\frac{1}{2}\), London and Laccashire \(\frac{1}{2}\), Palatine \(\frac{1}{2}\), Equitable Fire 1-6, and Macchester Fire 1-16 higher. Lancashires exceptionally are \(\frac{1}{2}\) to 5-16 lower.

lower.

COAL, IBON, &c., quite neglected in the matter of transactions.—
Higher: Bolckows (£12 paid), ‡; Staveley Coal, &c., B ‡; ditto, C.
2½.—Lower: Staveley A, 1; and Tredegar A, ‡.

MINES.—Chartered of South Africa show some repeated dealings and are 2s. 6d. higher. Tintos are ½, De Beers ‡, Consolidated Gold Fields 1-16, and Mysores 1-16 higher. Mason and Barry ½ lower.

COTTON SPINNING, &c., still rule lower where prices are tested, but as very little business is in progress this is in but very few instances.

SEARCH.
TELEGRAPHS AND TELEPHONES furnish no changes in prices, and
business save for two or three markings in National Telephone

BREWERIES.—Allsoppe have provided another sensation. The dividend announcement sent them down rapidly, the decline continuing with but little and short recovery down to 90. After some mending, however, they show fall of 18½ compared with price last week. Other changes are all in favour of holders as follow:— Threifall's, 1½; Guinness', 1; Clarkson's, ½; Boddington's, ½ to ½; and Hardy's, ½ to ½.

MISCELLANEOUS.—Ship Canals quiet again, especially the pre-

ference. Prices have mended during the week, but later have re-acted, and finish unchanged from a week ago. Brunner Monds are better on their fully-naid, and £8 10s. paid issues. Rylands & Sons acted, and finish unchanged from a week ago. Brunner Monds are better on their fully-paid, and £8 10s. paid issues. Rylands & Sons are ½, Bodega ½, Coats ½, Gas Light and Coke A 2, Manchester Trust 6d, to 2s., and Seddons 6d, higher. Crosses and Winkworth are 1-16 to ½, United Alkall ordinary 1-16 to 3-16, West India and Pacific Steamship ½, Liverpool Gas A 1, and Suez Canal 1 lower.

LATER (4 P.M.).—Allsopp's, after rising quickly from morning, have fallen away sharply again. Home Rails have gained strength under the lead of the Great Western, on a dividend announcement of 4½ per cent. with £23,000 over, comparing with 4 per cent. and £7000 odd over at same time last year. Americans began badly on

£7000 odd over at same time last year. Americans began badly on New York yesterlay's prices, but soon showed better, and, going strong, mended up to finish, prices showing good advances at the close from lowest points of the day. Canadians and Mexicans continue quite neglected. Ship Canals, nothing doing, but prices unlessed for the day. altered for the day.

EDINBURGH.

Messrs. Thomas Millers and Sons, Stock and Share Brokers, 69, Hanover-street, Edinburgh, reports follows under date of August 2:—Prices of home railway stocks have not varied much during the past week. Caledonian Deferred and North British are quite as good as they were a week sgo, notwithstanding the continued falling off in traffic returns. Great North of Scotland has risen from 93\frac{1}{4} to 94\frac{1}{4}. In banks, Commercial have risen from 67\frac{2}{4} to 68\frac{1}{4}. Clydesdale have

declined from 20 to 193, Union from 221 to 22, National from 337 to 336. The shares of fire insurance companies have advanced on declined from 20½ to 19½, Union from 22½ to 22, National from 337 to 336. The shares of fire insurance companies have advanced on rumours of improved prospects. North British and Mercantile have risen from 34 to 36½, Liverpool and London and Globe from 45½ to 46½, Northern from 62 to 63 5–16, Royal from 48½ to 49½, Commercial Union from 31 to 32, Lancashire from 511-16 to 6, London and Lancashire from 15½ to 16½. Scottish Accident have improved from 31s. to 31s. 6d., Scottish Imperial Life from 29s. to 30s., Scottish Metropolitan Life from 35s. 9d. to 37s. 6d. British South African shares have risen from 30s. 6d. to 34s., Colorado Mortgage and Investment have been offered at 65s., Broxburn Oil are 1s. 3d. higher at 81-16, Young's 1s. 6d. lower at 19s. 6d., Coat's 6s. 3d. higher at 13 3-16, Edinburgh Street Tramways 1s. higher at 81s. 6d., Union Steamship of New Zealand 5s. higher at 7½.

REPORTS FROM THE MINES.

is find it necessary to announce that, owing to the wast numbers of mining reports, and items of mining intelligence which reach us invariably very late—up to, and frequently after the time of going to press—it is impossible to guarantee the insertion of all of them in the issue in which, in ordinary course they should appear. We always endeavour, however, to make this important feature as complete as possible, and if the secretaries of mining companies, mining captains, and others would kindly make an effort to be their reports, etc., reach us certifue per production. their reports, etc., reach us early on Fridays, when it is not possible to let up have them earlier in the week, their doing so would go far to ensure their unsertion, and to promote the completeness of our Atining Intelligence.

BRITISH MINES.

DEVON GREAT CONSOLS,—William Clemo, August 2: Water's engine shaft. In the 172 fathom level east the lode is large son's engine shaft. In the 172 fathom level east the lode is large (5 feet) wide, producing 1 ton of copper and mundic ores per fathom. In the 160 fathom level east the lode is 3 feet wide, composed principally of capel. In the rise in the back of the 160 fathom level east the lode is unproductive of mineral. In Bawden's winze below the 148 fathom level east the lode is 3 feet wide, yielding 1 ton copper and mundic ores per fathom. This winze will soon be communicated with the rise in the back of the 160 fnthom level, when good stoping ground will laid open.

GREAT LAXEY.—F. Reddicliffe, August 1: Driving the 295 fathoms level north of Welsh shaft progresses regularly and satisfactorily, but no more or better description of lode has as yet been come upon, while the end is still directed northward upon an average

come upon, while the end is still directed northward upon an average bearing of the lode, and having regard to the position it occupies as proved in the levels above. Fair progress is likewise being made in driving the crosscut at the bottom (302 fathoms level) of Dum. in driving the crosscut at the bottom (302 fathoms level) of Dumbell's shaft. The lode in the 278 end north has improved a little since the last report, and for the last 2 fathoms driving has been worth £15 per fathom, which is al-o the present value. The new winze in the 266, about 30 fathoms north of the last one, is worth £18 per fathom, but the ground is a little charged with water at present, and the progress somewhat slow in consequence. A sink in the 200 fathoms level north fell off in value last week, and threatened to become unreductive but it has again improved. roductive, but it has again improved, its present value being £10 per

GREEN HURTH,-July 27; South west branch vein. During the past week the south forehead has been driven in confused ground, a quantity of stone having put in the end and splitting up the vein, thus diminishing its value for lead, worth at present 3 tons per fathom. The crosscut west from No. 1 south of Swan's shaft has

thus diminishing its value for lead, worth at present 3 tons per fathom. The crosscut west from No. 1 south of Swan's shaft has been driven over 4 fathoms, ground very tight for driving.—Annie's vein. I am pleased a report a further improvement for lead at the south forehead. This is worth 3 tons per fathom.—The stope in the back of the above level. This end maintains its value, worth for lead 1½ ton per fathom.—Annie's vein north. A fortnight ago I informed you that this working had been holed through to sump. Also that we had 5 fathoms of heading to take out. This ground has now been taken away, and have put these men on to drive south on Annie's vein in the back of the 30 level. This is in hazel 2 fathoms below our present drift. The vein has a kindly appearance at this random, showing a little ore, but not sufficient to value.—W. Gray. LEADHILLS.—W, H. Paull, July 31: Brown's Vein. The 160 fathom level south of Jeffrey's shaft is extended 35 fathoms 4 feet and let to 11 men at 100s. per fathom. Vein here ½ feet wide, consisting of quartz, carbonate of lime, and stone, with good patches of lead ore. The same level north of Wilson's shaft let to seven men at 100s. per fathom is now extended 52 fathoms 4 feet, vein 4 feet wide composed of spar, mundio, and a soft stone. The vein in No. 2 winze below the 145 north of Wilson's shaft tontinuing unproductive we have suspended the sinking thereof. A winze is set to sink below the 145 fathom level south of Wilson's shaft by four men at 85s, per fathom, The 145 fathom level novel purposed of quartz, stone, and lead ore worth 40 owts. per fathom, vein composed of quartz, stone, and lead ore worth 40 cwts, per fathom. The 145 fathom level north of Jeffrey's shaft is suspended per fathom. The 145 fathom level north of Jeffrey's shaft is suspended for the time, vein being poor. No, 1 stope over the 145 north of Jeffrey's shaft is set to two men at 27s. 6d. per fathom, vein worth 30 cwts, of ore per fathom. No. 2 stope over ditto north set to four men at 25s. per fathom, is in a vein yielding 25 cwts, of ore per fathom. The 115 fathom level is now advanced 125 fathoms 2 feet 6 inches north of Jeffrey's shaft, and set to two men at 85s. per fathom, vein 4 feet wide showing a good mixture of spar and occasional spots of ore. No. 1 stope over this level north set to two men at 37s. 6d. per fathom, vein worth 25 cwts, of ore per fathom. The 100 fathom level now extended 146 fathoms 4 feet 6 inches south of Wilson's shaft is set to five men at 60s, per fathom, vein 4 feet of Wilson's shaft is set to five men at 60s. per fathom, vein 4 feet wide, harder than of late, with a good mixture of spar, and of a more promising character. There being no improvement in the eastern portion of the vein at this level south we have deemed it prudent portion of the vein at this level south we have deemed it prudent to suspend the driving thereon at present. The cross cat at this level (the 100) is set to 7 men at 120s. per fathom. The point is now driven 16 fathoms 0 feet 3 inches towards Raik Vein; ground stiff for driving. The cross cut west at the 100 fathom level north of Wilson's shaft is coing steadily forward; now advanced 14 feet, and set to 4 men at 92s. 6d. per fathom. No. 1 stope over the drift above 100 south of Wilson's shaft is worth 60 cwts. of ore per fathom, set to 2 men at 25s, per fathom. No. 2 stope over ditto, set to 4 men at 25s, per fathom, will yield 60 cwts. of ore per fathom. No. 1 stope over the 85 south of Wilson's shaft, set to 4 men at 30s. per fathom, is worth 30 cwts. of ore per fathom. The vein interover the 80 south of Wilson's shaft, set to 4 men at 30s, per fathom, is worth 30 cwts, of ore per fathom. The vein intersected in cross cut east at the 70, south of Wilson's shaft, not proving of any value at point of intersection, operations here have been discontinued for the time. A stope in bottom of 70 south of Wilson's shaft is set to four men at 32s 64, per fathom on vein worth 30 cwts, of lead ore per fathom. A stope over the 50 fathom level south of winze and south of flat rod shaft set to four men at 27s 64 new fathom will produce 35 cwts of ore set to four men at 27s. 6d, per fathom, will produce 35 cwts, of ore per fathom. A stope below the 35 south of flat rod shaft, set to four men at 35s. per fathom, will yield 50 cwts, of ore per fathom.—Sarrowoole vein. Gripp's adit level is set to drive south of George's not vein to two men at 80s. per fathom, and now extended 77 noms. Vein 4 feet wide, continuing of a promising character,

fathoms. Vein 4 feet wide, continuing of a promising character, but producing no ore to value as yet.

POLBERRO.—Charles Thomas, John Harper, July 30: We have sunk Trevaunance shaft 6½ fathoms below the 14 fathom level on Pink lode, risen 3 fathoms on the line of shaft above the 20 fathom level, and 6½ fathoms son the line of lode above the 26 fathom level, making 16 fathoms in all. There is no change of importance in the 26 east or west on Pink lode. The distance opened on the South House lode since we intersected it in the 26 cross cut north is 7 fathoms. The last parcel from this point produced 40 lbs. of tin per ton. The lode maintains its size and general character, and is letting out more water.

letting out more water.

WEST KITTY.—St. Agnes, Scorrier, Cornwall, August 2: The 108 fathom level west is worth £7 per fathom; the 94 fathom level west is worth £8 per fathom. The 84 fathom level west is worth £9 per fathom. The 84 fathom level west is worth £9 per fathom. The 60 fathom level west south of alide is worth £14 per per fathom. The 60 fathom level east is worth £12 per fathom. In

the rise in back of the 60 fathom level we met with a gossan which has thrown the lode a little south. We have not quite cut through

has thrown the lode a little south. We have not quite cut through the lode yet. We have let the men at Thomas's shaft a contract to cut down and divide the shaft to the adit, and shall give a full report at the meeting,—(Signed) Joel Hooper, Jno. Williams.

WHEAL KITTY.—William Teagee, John Dunn, Charles Cole, July 27: In the 60 fathom level driving east of crosscut on the south lode, the lode is opening out very satisfactory, being now 7 feet wide, and worth for tin £20 per fathom. In the 60 fathom level driving east of crosscut on Joe's lode, the lode is worth for tin £11 per fathom, a very kindly lode. In the 20 fathom level crosscut we are driving towards the new vertical shaft, and hope to get under the same during the coming month. We have cleaned up and under the same during the coming month. We have cleaned up and secured the vertical shaft to the adit level; the men are now engaged in drawing out the water, and are making very good progress; after the water is out we shall proceed with the sinking with all speed. This shaft, according to an old plan, is 12 fathoms below the adit level

level.

BRITISH SOUTH AFRICA.—Frank Johnson and Co.'s representative in Mashonaland reports: A large number of people are rushing to Concessions Hill, about 60 miles south west of Salisbury, near Umful Gold Fird, on account of new finds. Developments are promising along the entire line of claims on two new reefs; they have struck, old workings; reefs are very rich, panning I ounce to 3 ounces. Work proceeding rapidly at Hartley Hills; expect mill will be ready August 15; arranging trial crushings for five properties. A Equitor's cablegram from Cape Town states that the company has received intelligence from Buluwayo that, inclusive of previous sales, the total sale of stands for Buluwayo and Gwelo amounted to 535, and the amount realised to £52,592.

GOLD FIELDS OF TIERRA DEL FUEGO.-Mr. J. M. Parson-

total sale of stands for Buluwayo and Gwelo amounted to 535, and the amount realised to £52,592.

GOLD FIELDS OF TIERRA DEL FUEGO.—Mr. J. M. Parsonson, the company's representative in Mozambique, reports as follows:

—Beira, June 24: My expedition starts beginning July. In the country we are going to there are reefs and alluvials of value. I have a place not far from here and not far from the railway where I can "peg" some good claims. I have made arrangements that a blook of claims shall be pegged for the company as soon as a reef is struck, and I am satisfied that the country is good enough. The only recent news is a fresh alluvial found north of Massa-Kessi. The country south of Busi is being opened up by a road from Iohavxo striking wes', then south, and crossing the river at Gangunhama's kraal, whence it turns north-west to Fort Victoria. A new large harbour, Macorane, has been surveyed. My idea is not to locate too many claims in one place; 17 claims equal I mile, and that is a large lot. This country is new and full of chanches. Between the Busi and the Pangwe is a fine country for prospecting, rich reefs, alluvial, and old workings. I am certain that valuable results will be obtained by prospectors. The rains have been unusually copious and lasting; at least one more month will have to pass before prospecting can begin.—(Signed) J. M. Parsonson.

HARQUAHALA.—Copy of Mr. T. Allen's report for the month of June:—Mining Department: Ore-breaking.—Discovery vein, above lat level, south. This section has supplied the mill with 12 tons daily. Its average assay value is \$12.50 per ton in gold.—Discovery vein, above 2nd level, north. North of the old shaft, above the old 2nd level, a stope has been started during the month. The mill has received 10 tons daily from this section has been 14 tons. The average value of the ore is \$14 per ton in gold.—Discovery vein, below 5th level, south. The vein shore of the real south. There are two stopes in operation here:—No. 1 stope. The vein is 6 feet wide, assaying \$11.50 per ton in gold.—Prospecting department: Iron vein, 6th level, south, This drift has been advanced 48 feet during the month. Average width of vein is 1½ feet, and its assay value \$8 per ton in gold.—New incline shaft. Station at 7th level has been completed, and we are rage width of vein is 1½ feet, and its assay value \$8 per ton in gold.—
New incline shaft. Station at 7th level has been completed, and we are cross-cutting at two points.—No. 1 cross-cut, 7th level. This cross-cut has been driven westerly \$9 feet. Its object is to cut the iron vein on the 7th level. The face is porphyry.—No. 2 cross-cut, 7th level. This cross-cut has been advanced 41 feet in porphyry. Its direction is northerly, towards the main working shaft, and its purpose is to intersect any or all of the ore seams and deposits encountered on the 6th level, and prove their existence and continuation downwards to the 7th level.—Hanging wall cross-cut, 5th level, south, We have resomed operations in this long cross-cut. It has been advanced 86 feet in quartzite, latterly the quartzite has been mixed with soft porphyritic intrusions.— No. 1 cross-cut, 6th level, south. During the month work has been commenced on the base ore deposits encountered on the 6th level.—A winse has been started on the seams cut in the No. 1 cross-cut, and reported on last January. The ore-channel in this winze is being followed irrespective of direction; it is erratio in its course and inclination. Its width is 3 feet, and is composed of soft porphyry, clay, quartz nodules and iron, including copper. The values in free gold run from \$90 to \$20, and all ore extracted has been sent to the mill. This and other points in the 6th level can be reached more advantageously from the 7th level, and we are now driving with all speed northerly towards them from the deepest level.—Golden Eagle group: Tunnel level, south drift. This drift has been advanced 14 feet. The vein is 2 feet wide, assaying \$12 per ton in gold.—Golden Eagle group: New shaft. 70 feet south of the main tunnel a new shaft is being sunk on the vein. Its depth is 22 feet, and the vein in the bottom measures 3 feet in width, assaying \$12.50 per ton,—Milling department. The milling operations for the month have been steady. The new battery of stamps is working well. The followin \$36,500; miscellaneous revenue (profit from general store, estimated), \$500; total, \$37,000; expenses on revenue account, \$13,000; mated), \$500; total, \$37,000; expenses on revenue account, \$13,000; estimated profit for the month, \$24,000 (or at \$4.90 to £ sterling, £4897); average loss in tallings, \$3.82. The weather is exceptionally hot, 114° in the shade. Every department is in good working

HARRIETVILLE.—Fortnightly report of Mr. T. G. Davey, super tendent, dated June 22: Mons Meg Mine: Drive north of winze on main shoot 100 feet below tunnel D advanced 18 feet, total 132 feet. Lode 4 feet wide, making in alternate splices on hanging and footwalls somewhat auriferous, but not payable. Rise at back of south drive at same level advanced 7 feet, total 22 feet. Lode 3 feet wide, drive at same level advanced 7 feet, total 22 feet. Lode 3 feet wide, and carrying payable veins in footwall; assay value 5 dw's. per ton.

—Stopes. Lode in stopes at tunnel D from 10 feet to 15 feet wide, and assaying from 3 dwts. to 6 dwts. per ton. Stope at back of 240 feet level below J. Lode 4 feet wide, carrying visible gold and assaying 12 dwts. per ton. Lode in stope at back of 44 feet level below J, 2 feet wide, assaying 4 dwts. per ton —Saint Bernard Mine. Have nearly completed re-timbe.ing of old drives and tunnels, and men will soon be employed at the Pennsylvania shaft in order to develop the rich vein recently discovered there. Driving in search of old miner's shoot will also be proceeded with from the bottom & innel.

KAPANGA.—M. Bawden, August 1: We have three calciners at work, two on areenical mendic and one on the white, and we hope that the 32 men we have working in such of the stopes as will pay well for arsenical mendic and the will enable us to keep at least well for arsenical mundic and the will enable us to keep at least three of the four calciners fully going. We restarted the engine shaft on July 12, and have since that date sunk 11 feet 6 inches for the full size of the shaft—viz., 12 feet. The men are working from one o'clock on Monday mornings to 10 o'clock on Saturday nights, relieving in place, and we hope and expect that by working in this way in three weeks from date to complete the lift and shall then received with the received the ledge.

ALMADA AND TIRITO.—Report for month ending June 30 Dios Padre: The 350 feet level driving north has been extended 29 feet 1 inch by four men. The lode is variable, and at present only occasional stones of ore are met with. The 250 feet level driving north has improved during the past week, and is now yielddriving north has improved during the past week, and is now yielding small quantities of green ore showing spots of grey copper, and a small quantity of water is issuing from the lode. 29 feet were driven by four men. The 250 feet level driving south was extended 13.5 feet by two men. The lode is yielding some fine stones of copper glance, but not in paying quantities.—Stopes. The Cruz Verde is yielding fair quantities of good ore, as also the stopes in the 12 and 24 fathoms levels north of Balvanera.

AUSTRALIAN BROKEN HILL CONSOLS.— The mining manager reports by mair for the fortnight ended June 21. Block 96.

AUSTRALIAN BROKEN HILL CONSOLS.— The mining manager reports by mai for the fortnight ended June 21; Block 96. 280 level east prospecting drive No. 4 rise stopes driven 29 feet. Stoping on rich vein continued yielding horn and native silver, chloride, and iodide of silver. The gangue still consisting of quartz and carbonate of iron. Lode is not looking so promising as at the time of last report. Have also stoped easterly and upwards on shoot of ore and met with a little chloride and iodide of silver.—Raised. Tons, 18, 3, 4, containing 1502 ounces of silver. No. 6 rise driven 6 feet 6 inches, total 19 feet 6 inches. The lode here is small, but more oxidised: have transferred men for the present to a point in No. 4 rise where native silver was first met with. 280 level west stopes driven 12 feet 6 inches. Chamber finished. Erected platform and windlass and rails laid; resumed stoping in a southwesterly direction. Incline such 5 feet, total 506 feet 6 inches. The lode here is getting stronger and more defined, and country is more

platform and windlass and rails laid; resumed stoping in a southwesterly direction. Incline sunk 5 feet, total 506 feet 6 inches. The lode here is getting stronger and more defined, and country is more settled. No. 4 east of incline driven 3 feet, total 228 feet. No change; have transferred men from No. 5 level east to this drive. No. 1 rise of No. 4 east of incline driven 8 feet 6 inches, total 31 feet. The lode formation has widened to 6 feet, carrying three veins of carbonate of iron yielding galena and a little fahlerz. Influx of water strong.—Note: The quantity of rock mined during the fortnight was 2680 cubic feet.

BALAGHAT-MYSORE.—Captain Joseph Pryor, July 10: Ogle's Shaft. This shaft has been further deepened 4 feet, or 29 feet below the 800 feet level; and, as anticipated, I am pleased to say the lode has recently so improved as to now yield quartz of from 6 to 9 inches wide, and of an assay value of 1 ounce 2 dwts. 2 grains of gold per ton. We are expecting it will soon further improve. Seeing this improvement has come in from the south, we are hoping it will result in the opening out of a fresh or independent shoot from that now worked on north of the shaft, and in the hopes of its continuing productive, we are making the necessary preparations for removing the small winding engine now fixed in the 800 south level, that we may resume the driving of this level southward, and so test the value in this direction of the above recent improvement. The 800 feet level north has been advanced 20 feet, or 175 feet 6 inches from the shaft; the quartz varies from 1 foot to 2 inches wide, and assays from 1 ounces 6 dwts. 17 grains to 4 ounce per ton. The No. 1 winze in the bottom of this level southus 2 feet 6 inches, or 42 feet 6 inches below the level; the quartz is 1 foot wide, and assays varying from 6 ounces to 2 ounces 5 dwts. 9 grains per ton. assays from 1 ounces 6 dwts. 17 grains to 4 ounce per ton. The No.1 winze in the bottom of this level has been sunk 12 feet 6 inches, or 42 feet 6 inches below the level; the quartz is 1 foot wide, and assays varying from 6 ounces to 2 ounces 5 dwts. 9 grains per ton. The stopes in the back of this level yield quartz of from 12 to 14 inches wide, and assay on an average 2 ounces 11 dwts. 6 grains per ton. The stopes in the bottom of the 730 feet level north produce quartz of from 6 to 14 inches wide, and assay on an average 1 ounce 15 dwts. 4 grains per ton. The stopes in the back of this level yield quartz of from 9 inches to 1 foot wide, and assay 17 dwts. of gold per ton. The stopes in the bottom of the 660 feet level north produce quartz of from 6 inches to 9 inches wide, and assays 10 dwts. 4 grains of gold per ton.—Haine's Shaft. During the past fortnight we have occasionally succeeded in not only getting the water in fork, but'managed to do a little towards the cutting of the ground for the plat at the 870 feet level. I am to-day advised that the new Cameron pump, referred to in my last report is now on its way to the mines from Madras. No time will be lost on its arrival here to get it fixed, when I hope we shall overcome this water difficulty, and be able to push forward with the sinking and driving with satisfactory speed. The lode in what shaft, as well as at the 870 feet levels north and south continues of a promising character, and yield quartz of from 1 to 12 feet wide, the shaft, as well as at the 870 feet levels north and south continues of a promising character, and yield quartz of from 1 to 1½ feet wide, and of an assay value of from 5 dwts. 2 grains to 7 dwts. 10 grains per ton. The 800 feet level south has been extended 24 feet, or 278 feet from the shaft. The quartz is 16 inches wide, and assays 6 dwts, 7 grains per ton. The No. 1 winze in the bottom of this level has been sunk 9 feet, or 44 feet 6 inches below the level. The quartz varies from 15 to 8 inches wide, and assays 4 dwts. of gold per ton. At about 235 feet from the shaft we have started to gold per ton. At about 235 feet from the shaft we have started to sink another, or No. 2 winse; it is now down 5 feet 6 inches below the level, and yields quarts 16 inches wide, of an assay value of 5 dwis, per ton. At about 220 feet from the shaft we have driven a crossout west, and cut the other part of the lode referred to in my last report; we are now driving south on its course, and hope ere long to effect the communication with the midway winze. The quarts in the present end is 1 foot wide, and assays 4 dwts, per ton. The stopes in the back of the 800 feet level south yield quartz of from 9 to 15 inches wide, and assay on an average 19 dwts. 9 grains, per ton. We have again been able to resume the driving of the 800 feet level north from the bottom of the midway winze at the 730 feet level south, and have advanced it 5 feet or 10 feet 6 inches from the winze, the quarts is about 6 inches wide and assays 9 dwts. feet level north from the bottom of the midway wince at the 730 feet level south, and have advanced it 5 feet or 10 feet 6 inches from the winze, the quartz is about 6 inches wide and assays 9 dwts. 2 grains per ton. The stopes in the back of the 730 feet level south yield quartz of about 1 foot wide, and of an assay value of 13 dwts. per ton.—Tennant's shaft. This shaft has been sunk 8 feet 6 inches, or 71 feet 6 inches below the 350 feet level. The lode, although not at precent yielding quartz of value, is of a very promising character, and will, I hope, ere long considerably improve. Having reached the necessary depth for starting off the new or 420 feet levels I am glad to say we have just commenced doing so. The lode in both of the ends is of a very kindly appearance, and judging from the quartz in the bottom of the winze north and south of the level above, I think we shall very soon meet with an improvement at this depth. The 350 feet level north has been extended 15 feet 6 inches, or 121 feet 6 inches from the shaft. The quartz is 15 inches wide, and assays 9 dwts. 2 grains per ton. The No. 1 winze in the bottom of this level has been sunk 4 feet 6 inches, or 11 feet 9 inches below the level. The quartz is fully 3 feet wide, and assays 10 dwts. 4 grains of gold per ton. The rise in the back of this level has been advanced 7 feet 9 inches above the level. The quartz is 1 foot wide, of gold per ton. The rise in the back of this level has been advanced 7 feet 9 inches above the level. The quartz is 1 foot wide, and assays 7 dwts. 10 grains per ton. The 350 feet level south has been driven 17 feet 3 inches, or 138 feet 9 inches from the shaft.

it, when it showed a well-defined wall 4 feet wide, carrying good gold, ronning at about 45 degrees to the main reef.

PALGANJ.—No. 56, Narongo Tin: Report of work done for two weeks "ending June 30.—No. 2 shaft. Sinking for the fortnight 16 feet 6 inches, total depth from surface 335 feet. When I sent you my last report the shaft was in quarts, since then we have gone through the quarts and recovered the lode again, which is 3 feet 6 inches wide with foot and hanging walls very regular; that I was not to say only a trace of tin can be found, thench. 3 feet 6 inches wide with foot and hanging walls very regular; but I am sorry to say only a trace of tin can be found, though the lode is uniceralised throughout, and should, from its present appearance, turn out a good lode before very long.

MYSORd.—Richard Hancock, July 10: Mining operations for the fortnight ending July 9: Rowse's Shaft, 1460 North of Crosscut,

This end has been driven 19 feet 6 inches, making a total distance driven of 55 feet 6 inches. The lode is 1 foot 3 inches wide, assaying 1 ounce.—1360 feet Level North, South of Crossout. This end has been driven 4 feet, making a total distance driven of 117 feet 10 inches. The lode is 1 foot 3 inches wide, assaying 1 ounce 6 dwts, 3 grains,—1360 feet Level North of Winze. The rise in the back of this level has been put up 22 feet 6 inches, making a total height of 68 feet. The lode is 5 feet wide, assaying 13 dwts. 1 grain. The winze in the bottom of this level has been sunk 9 feet. making a total depth of 95 feet 6 inches. The lode is 2 feet wide, assaying 5 dwts. 5 grains,—1260 feet Level North. Therise in the back of this level has been put up 2 feet, making a total height of 92 feet 6 inches, and communicated to the 1160 feet level north. There are six stopes in the back of this level, the average width of the lode six stopes in the back of this level, the average width of the lode 6 inches, and communicated to the 1160 feet level north. There are six stopes in the back of this level, the average width of the lode being 5 feet 1 inch, giving average assay of 1 ounce 2 dwts, 1 grain.—
1260 feet Level South. There are two stopes in the back of this level, the average width of the lode being 2 feet, giving an average assay of 1 ounce 13 dwts. 22 grains. Driving south on the fold in the back of this level has been driven 19 feet 6 inches, making a total distance driven of 72 feet. Lode 3 feet 6 inches wide, assaying 3 ounces.—1160 feet level north. There are 5 stopes in the back of this level —1160 feet level north. There are 5 stopes in the back of this level, the average width of the lode being 1 foot 8 inches, giving an average assay of 1 ounce 8 dwts. 17 grains.—1160 feet level south. The lode in the stope in the back of this level is 1 foot 8 inches wide, assay. in the stope in the back of this level is 1 foot 6 inches wide, assaying 2 ounces 2 dwts. 1 grain.—1060 feet level north. The lode in stope in the back of this level is 1 foot 6 inches wide, assaying 1 ounce 13 dwts. We have two pares of men stripping down side in the bottom of this level in which the lode averages 1 foot wide giving an average assay of 7 dwts. 19 grains.—990 feet level north. We have a pare of men engaged stripping down side in the back of this level in which the lode is 1 foot wide, assaying 10 dwts, 10 grains.—890 feet level north. The lode in the stope in the back of this level is 3 feet wide, assaying 10 dwts, 10 grains.—780 feet level north. This end has been driven 12 feet, making a total distance driven of 508 feet. The lode in the stope in the back of this level is 3 feet wide, assaying 1 ounce,—620 feet level back of this level is 3 feet wide, assaying I ounce,—620 feet level north of crossout. This end has been driven 3 feet, making a total distance driven of 246 feet. There is nothing here to report. There are three stopes in the back of this level the average width There are three stopes in the back of this level the average width of the lode being 3 feet 2 inches, giving an average assay of 14 dwts. 10 grains. 466 feet level north of No. 1 crosscut. This end has been driven 10 feet, making a total distance driven of 36 feet 6 inches. The lode is 1 foot wide, assaying 8 dwts.—400 feet level north. We have one machine and four pares of men cutting out ground in the back of this level for Crocker's shaft. The lode averages 3 feet wide, assaying 3 dwts. 6 grains.—296 feet level north. Driving north on the branch met with in the eastern side of the level above has been driven 28 feet, making a total distance driven of 38 feet. The lode is 2 feet 6 inches wide, assaying 13 dwts, 1 grain. We have two pares of men cutting out ground in the bottom of this level on line of incline for Crocker's shaft. The lode is 3 feet wide, assaying 3 dwts, 6 grains.—236 feet assaying 13 dwts, 1 grain. We have two pares of men cutting out ground in the bottom of this level on line of incline for Crocker's shaft. The lode is 3 feet wide, assaying 3 dwts. 6 grains.—236 feet level north. The drift north on the quartz met with in the eastern side of this level has been suspended for a time. We have a pare of men cutting out ground in the bottom of the rise in the back of this level, on line of incline for Crocker's shaft. The lode is 3 feet wide; no assay made. There are two stopes in the back of this level, the average width of the lode being 2 feet, giving an average assay of 13 dwts. 6 grains.—Taylor's shaft, 400 feet level north. There are two stopes in the back of this level, the average width of the lode being 4 feet, giving an average assay of 1 ounce 9 dwts. 12 grains.—Gilbert's shaft, 650 feet level north. This end has been driven 17 feet, making a total distance driven of 404 feet. There is nothing here yet to report.—520 feet level north. There are two stopes in the back of this level, the average width of the lode being 1 foot 9 inches, giving an average assay of 11 dwts, 17 grains.—520 feet level south. The lode in the stope in the back of this level is 1 foot 3 inches wide, assaying 9 dwts. 2 grains.—360 feet level north. There are two stopes in the back of this level, the average width of the lode being 1 foot 10 inches, giving an average assay of 19 dwts. 4 grains.—290 feet Level North. There are four stopes in the back of this level, the average width of the lode being 2 feet, giving an average assay of 18 dwts. 6 grains.—290 feet Level South. The lode in the stope in the back of this level is 3 feet wide, assaying 3 dwts. 22 grains.—180 feet Level South. Taking away arches of ground in the back and bottom of this level. Taking away arches of ground in the back and bottom of this level. Taking away arches of ground in the western side of the shaft for a tram road and tip plat.—600 feet Level North. This end has been driven 8 feet 3 inches, making a total distance driven for a tram road and tip plat.—600 feet Level North. This end has been driven 8 feet 3 inches, making a total distance driven of 25 feet 3 inches. This drift has been suspended for a short time, and the machine put to cut a plat at this level.—520 feet Level North. The rise in the back of this level has been put up 9 feet 6 inches, making a total height of 94 feet. There is nothing here to report. The lode in the stope in the back of this level is 4 feet wide, assaying 19 dwis. 14 grains. The winze in the bottom of this level (115 feet north of the shaft) has been sunk 12 feet. The lode is 5 feet wide, assaying 13 dwis. 1 grain.—360 feet Level North, South of Crossout. The winze in the bottom of this level has been sunk 5 feet making. The winze in the bottom of this level has been sunk 5 feet, making a total depth of 55 feet. The lode is 10 inches wide, assaying 7 dwts. 3 grains.—290 feet Level South, South of Crosscut. This 7 dwts. 3 grains.—290 feet Level South, South of Crosscut. This end has been driven 2 feet 9 inches, making a total distance driven of 80 feet. This end has been suspended, and the men put to soka winze in the bottom of the level, 90 feet north of the crosscut. The lode is 2 feet wide, assaying 1 ounce 10 dwts.—Schaw's Shaft, 450 Feet level north crosscut east. This end has been driven 1 foot 6 inches, making a total distance driven of 27 feet. The winze in the bottom of this level has been sunk 3 feet 3 inches, making a total depth of 89 feet 9 inches. The lode is 1 foot wide, assaying 2 ounces. The lode in the stope in the back of this level is 1 foot wide, assaying 13 dwts. 1 grain.—450 Feet level north, south of cross cut. The winze in the bottom of this level has been sunk 12 feet, making a total depth of 16 feet 6 inches. The lode is 3 feet wide, assaying 16 dwts. 23 grains. The lode in the stope in the back of assaying 16 dwts. 23 grains. The lode in the stope in the back of this level is 1 foot 6 inches wide, assaying 9 dwts. 2 grains.—320 Feet level north. The winze in the bottom of this level has been sunk I foot 6 inches, making a total depth of 159 feet 9 inches. The lode is 6 inches wide, assaying 3 dwts. 22 grains.—320 Feet level north of cross cut. The rise in the back of this level has been put up 12 feet 6 inches, making a total height of 92 feet 6 inches. The lode is I foot wide, assaying 2 dwts. 14 grains.—320 Feet level sooth of cross cut. This end has been driven 2 feet, making a total distance driven of 174 feet. There is nothing here to report. The lode in the stope in the back of this level is 1 foot wide, assaying 3 dwts. been driven 17 feet 3 inches, or 138 feet 9 inches from the shaft. We have evidently gone through the disturbed ground referred to in my last, and are now passing through ground of a more congenial character, and although it does not as yet yield any quarts, the present appearance of the end is decidedly favourable and promising for an early improvement. The No. 1 winze in the bottom of this level has been sunk 5 feet 6 inches, or 15 feet 6 inches below the level, The quarts is from 6 to 9 inches wide, and assays 12 dwts, 11 grains of gold per ton,—Surface. The general surface work is progressing fairly satisfactorily.

STAR OF THE EAST (W. Australia)—The report for the fortation, and the machine and data gold lang 2 gway: The sinking of the main shaft has been at time, and the machine put to help in the sinking of MoTangart's at time, and the machine put to help in the sinking of MoTangart's progressing fairly satisfactorily.

If STAR OF THE EAST (W. Australia) —The report for the forting the ended June 2 cays: The sinking of the main shaft has been continued, going down 6 feet, thus making a total depth of 92 feet. This place has been suspended for the inflow of water has greatly increased; in fact, the supply is about double. In the east drive, about 40 feet from the main shaft, stone is showing in one place in the south wall. I started to follow it, when it showed a well-defined wall 4 feet wide, carrying good of 254 feet—Ribbledale's shaft. This shaft has been sunk 14 feet cold, ranning at shout 45 degrees to the main reed. of 254 feet—Ribblesdale's shaft. This shaft has been sunk 14 feet 6 inches, making a total depth of 337 feet.—1060 rise. This has been put up 7 feet, making a total height of 21 feet.—William's shaft, crosscut east at the 173 feet level. This has been driven 2 feet 6 inches, making a total distance driven of 53 feet.—East prospect shaft No. 2. Owing to the expense of keeping out the water we have abandoned the sinking of this for the present.—June return, 4713 tons of quartz were crushed, yielding 2809 cunces 11 dwts. 10 grains, and 585 cunces 16 dwts. 10 grains were recovered from tallings sand treated, making a total production for the month of 3395 cunces 7 dwts, 20 grains. The health of the camp is good.

MYSORE REEFS.—Fortnightly report of Captain M. Scantlebury, mine agent, dated July 10: Underlie Shaft; The sinking of this

shaft was resumed on the 1st instant since when 7 feet 6 inches have shaft was resumed on the 1st instant since when 7 feet 6 inches have been sunk which now makes a depth of 11 feet below the 250 feet level. The lode is 3 feet wide composed of quartz and iron pyrites. The assays have varied from 1 ounce 6 dwts. to 3 dwts. 16 grains of gold to the ton, 250 feet level north has been advanced 15 feet, now 78 feet 6 inches from shaft. The lode is pinohed being about 6 inches wide composed of quartz and iron pyrites, assaying 3 ounces 5 dwts. 8 grains of gold per ton.—250 feet level south crosscut west. This is driven 5 feet and the main part of the lode intersected, which is 15 inches wide assaying 2 ounces 12 dwts. and 3 ounces of gold to the ton. As soon as the communication is made between the two shafts we shall resume the driving of this end on the main part of the lode with a rock drill.—Vertical Shaft. This shaft has been sunk by shafts we shall resume the driving of this end on the main part of the lode with a rock drill.—Vertical Shaft. This shaft has been sunk by hand labour 3 feet 3 inches, now 3 feet 9 inches below the 200 feet level. The rock is hard, and progress will be slow by hand labour. 200 feet level north has been advanced 16 feet 6 inches, now 115 feet 6 inches from shaft. The lode is 3 feet wide, but for the moment, comparatively speaking, poor, assaying only 2 dwts. 14 grains of gold per ton. 200 feet level south has been extended 20 feet, now 118 feet 6 inches from shaft. We have obtained some really beautiful quartz from this end since my last report, but the last assay taken from across the lode, which is 2 feet 6 inches wide, composed of quartz and iron pyrites, gave only 3 dwts. 10 grains of gold to the ton. Winze below the 200 feet level south has been sunk 5 feet, total depth 5 feet. The lode is 1 foot wide, composed of quartz and iron pyrites, assaying 3 dwts. 6 grains to the ton.—New Well. This has been sunk 2 feet 8 inches, total depth 30 feet 8 inches. This is now being timbered preparatory to putting down 8 inches. This is now being timbered preparatory to putting down

MOUNT LYELL.—The London committee have received the ollowing report from the Melbourne board for the week ending une 14: Engine shaft, 100 feet crosscut. Work was suspended in this face during the week, while the opening outset at the intermediate level was being put in place. Driving has been resumed to-day.—Intermediate level 75 feet. The crossout has been advanced 10 feet. The country is composed of soft schist, highly stained by iron oxides.—50 feet level south drive. The drive has been advanced iron oxides.—50 feet level south drive. The drive has been advanced only 1 foot, total 135 feet. The pyrites formation has turned at right angles to the last, and it was, therefore, necessary to come back in the drive to straighten it.—No. 1 winze 50 feet level. Depth sunk 2 feet, total 12 feet. The country is red oxide of iron, and extremely hard.—Stopes. The face north from the chamber has been advanced 1 foot, and the rich ore shows no material change from last week. The winze at each end of the west crossout has been sunk 2 feet, total 9 feet. Rich ore shows across the bottom and in the sides, average width about 18 inches.—No. 2 shaft, 100 feet crosscut. At a distance of 53 feet from the start the large pyrites body was out. Samples taken from a borehole into the face prove body was cut. Samples taken from a borehole into the face prove the pyrites to be of practically the same class as that first cut by the No. 4 tunnel.—No. 5 tunnel. Since the beginning of the week three shifts have been at work, and the tunnel extended 14 feet, total 627 feet. Country consists of conglomerate and schist and shoots well.

—Ore raised. 215 bags weighing 8 tons 12 cwts. 1 qr. 8 lbs., containing 10,154 ounces silver and 2 tons 3 qrs. 27 lbs. copper averaging 1166 ounces silver, and 23½ per cent. of copper per ton.—Ore despatched. 184 bags weighing 11 tons 3 cwts. 1 qr. 2 lbs. containing 10,263 ounces silver, and 3 tons 2 csts. 3 qrs. 7 lbs. copper.

NINE REFERS.—Extrained representations of Contain Index.

10,263 ounces silver, and 3 tons 2 cats, 3 qrs, 7 lbs. copper.

NINE REEFS.—Fortnightly report of Captain John Woolcock, mine agent, dated July 10: Vyvyan's shaft. The crosscut west at the 460 feet level has been extended a further 11 feet 10 inches making a total distance from the hanging wall of the shaft 40 feet 9 inches, in this driving nothing of value has been met with, and the ground is hard and of an unpromising nature, and in my opinion it has been driven quite far enough to convince us that there is no part of the lode standing in that direction and the driving was suspended yesterday. The east crosscut has been driven 13 feet making a total distance from the east side of level 25 feet 10 inches. At this point we intersected the east lode, which was found to be 6 inches wide. The quartz is of a similar character as seen in the 145 and 220 crosscuts. Is shall open out a little on its course to see 6 inches wide. The quartz is of a similar character as seen in the 145 and 220 crosscuts. I shall open out a little on its course to see if it will improve. We have taken four samples from the quartz, but I regret to say these have not been auriferous.—Bennett's shaft. We have not discovered anything to notice in the crosscut west to the north of this shaft, at the 145 feet level; it has been further advanced 9 feet 5 inches, making a total distance from the level of 263 feet.—South shaft. Since last report we have taken out the necessary ground for the shaft at the end of the west crosscut, out hitches put in heavers and fived the two bettern sets and the shaft. 263 feet.—South shaft. Since last report we have taken out the necessary ground for the shaft at the end of the west crosscut, cut hitcher, put in bearers, and fixed the two bottom sets, and the shaft has been risen on the course of the lode 5 feet. We shall effect a communication with the vertical as soon as possible in order to resume the sinking below the crosscut which I look upon as important. The crosscut east from this shaft has been advanced 12 feet 7 inches, total distance 30 feet 10 inches. The ground is of a favourable character, and I hope the caunter lode will open up something good.—Prospecting. The No. 1 shaft which is being sunk on the McTaggart lode, and situated 60 feet from southern boundary, or 268 feet to the north of No. 4 shaft in West Balaghat, which is the continuation of the same lode, has been sunk 8 feet 9 inches, making a total depth from surface of 79 feet 8 inches. The lode at present is 18 inches wide composed of a soft schist highly stained with oxide of iron and carrying numerous small veins of quarts and worth by assay 5 dwts. 2 grains of gold per ton and judging from the results in the No. 4 shaft West Balaghat, I am of an opinion that the lode will improve as depth is attained. The No. 4 shaft is now 96 feet 11 inches from surface, having been sunk 1 foot 10 inches. For the last 10 feet the lode has been very narrow and of no value, and the ground very hard indeed, and I put the men to crosscut east and west from the bottom of the shaft, to prove if there is any better part standing on either side. The No. 5 shaft has been sunk 17 feet 2 inches, making a total depth from surface of 43 feet 10 inches. The lode is 18 inches wide, composed of a soft country rock and veins of quarts, highly stained with iron, and worth by assay 3 dwts. 10 grains of gold per ton. The rois nothing that calls for remark in our surface or machinery department. 10 grains of gold per ton. There is nothing that calls for remark in our surface or machinery department.

OSCAR.—The following report has been received from the mine, dated Haugeaund, July 28: Hodgkinson's Lode. We have two miners at work in the 500 north level who are making headway about 6 feet weekly. The quartz in present end has a width of 15 inches, is of a promising obaracter, and contains a quantity of copper and iron pyrites, finely impregnated throughout. The lode has within the last day or so improved both as to width of quartz and quality of same. The lode in the rise from 200 north is still the present and is composed for the greater parts. very irregular in appearance, and is composed for the greater part of the hard grey quarts, copper pyrites, and a little galena is being met with in the lode. I'wo miners are working at this point, but progress is slow owing to the very hard nature of the rock. I see no alteration to call for remark in any of the other workings,

SOUTH-EAST MYSORE. — Fortnightly report of Captain M. Scantlebury, mine agent, dated July 10: Beresford's Shaft. This shaft has been sunk by hand labour 5 feet 6 inches, which now makes shaft has been sunx by hand isbour o feet o indices, which now makes a depth of 111 feet 9 inches on the course of the lode and 209 feet 6 inches from surface. The lode is 2 feet wide, assaying 3 ounces 3 dwts. and 1 ounce 19 dwts. 4 grains of gold to the ton. 200 feet level north has been advanced 17 feet, now 71 feet from shaft. The lode is 4 feet wide. The quartz against the hanging wall for a width of 2 feet assays 1 cunce 12 dwts. 16 grains of gold to the ton. The quartz on the footwall, which is intermixed with a great deal of iron quarts on the toolwant, which is intermixed which a great dear of from pyrites, assays 2 dwiss, 14 grains of gold per ton. 200 feet level south is extended 16 feet 6 inches, now 69 feet 6 inches from shaft. The lode is 3 feet 6 inches wide. The quarts against the lianging wall for a width of 1 foot 6 inches assays 12 dwist, 1 grain of gold per ton. The quarts on the footwall, which is mixed with a great deal of iron pyrites, assays 2 dwts. 22 grains of gold to the Pigott's Shaft. The cross cut east at the 180 feet level he extended 6 feet, now 24 feet 6 inches from shaft. We hav caronard u test, now 24 feet 6 inches from shaft. We have gone through a very hard piece of ground, but I think it is now a shade easier; small stringers of quarts are crossing the end, which I should say indicates that we are near the lode,—Surface. The ground is almost all taken out for the tramway to the stamps and other work preparatory to the aregion of the mill is head. We have gone preparatory to the erection of the mill in hand.

BRILLIANT BLOCK.—Mine manager's report fortnight ending June 13: Underlie shaft deepened 10 feet, total depth from No. 5 plat 102 feet. Reef is about 4 feet thick of medium quality. We are now deep enough for No. 6 plat, and in a few feet more shall sink a well hole and open out No. 6 level east and west. No. 5 level west extended 20 feet, total from shaft 194 feet; no change. Two stopes over this level carry a reef 2 feet 6 inches thick. No. 5 level east extended 25 feet, total from shaft 227 feet. The reef is 6 feet thick of fair quality. In the leading stope the distance between the walls is 16 feet, of which 6 feet is fair quality stone, In the three other stopes the reef varies from 1 to 2 feet thick medium quality.—No. 4 Level West. The two stopes over this level show 2 feet of stone of low quality:—No. 4 Level East. The hanging wall reef is about 2 feet thick of fair quality.—The stopes over footwall carry a reef 2 feet thick of medium quality.—No. 3 Level East. Winze (about 30 feet from boundary) has been sunk 19 feet. When 50 feet deep this is expected to hole through into footwall stopes over No. 4 level east.—No. 2 Level East. We are stoping over this level on 18 inches poor stone.—Stone raised. 800 tons.—Stone crushed. 746 tons for 826 cances 2 dwts, 12 grains gold.

CUMBERLAND GOLD.—June 4; Our operations this month have been chiefly confined to baling. The wet season having terminated we have not had so much trouble with the water this month. The party of tributors in No. 4 level north have raised about 30 tons of ore since resuming after their last crushing. The tributors have had permission to work outside the ground originally let to them in

have been chiefly confined to baling. The wet season having terminated we have not had so much trouble with the water this month. The party of tributors in Nc. 4 level north have raised about 30 tons of ore since resuming after their last crushing. The tributors have had permission to work outside the ground originally let to them in No. 4 level north. This permission was given with a view to prospecting the country north for the country without any expense. I am glad to be able to report that this prospecting has not been useless, for after a considerable amount of deadwork a reef of about 3 inches of really good looking ore is showing on the hanging wall making downwards in a due northerly direction. The tributors will not be allowed to work this reef any farther north at present, as perhaps at some future time it would be advisable for the company to try it.—(Signed) Anthony Gallagher.

CRAVEN'S CALEDONIA.—The following fortnightly report has been received from the mine, dated Charters Towers, June 7: The winze going down from No. 9 level has been sunk a further distance of 9 feet, making a total depth from the level 110 feet. The reef is about 10 inches thick. In the underhand stope from No. 9 level the reef is about 10 inches thick. In the underhand stope from No. 9 level the reef is about 10 inches thick. The level (No. 9) has been extended a further 8 feet, making a total of 245 feet from the slide; the reef in the face is about 10 inches thick, and also the same size in the first two stopes. There is about 9 inches of very nice looking stone in the next three stopes. No. 3 level has been extended a further distance of 5 feet by two men on wages, making a total of 327 feet from the slide. The reef in this level is about 7 inches thick, and in the first stopes about 10 inches of very good stone. In the stopes over No. 7 level the reef has been very good stone; in the next four stopes there are about 8 inches of good stone. In the stopes over this drive the reef is about 6 inches. No. 6 level has been exte

by three men on wages. The reef in this drive is 4 inches thick. In the two stopes over this drive the reef is about 9 inches. The first pass is about 40 feet long, but very flat, so I intend to take up the footwall right into the face, and 15 feet have been driven. I have raised 3 tons of quartz.—(Signed) G. Cabassi.

LA YESCA.—Captain Michell reports on July 4:—San Miguel Mine. I wrote on 27th ultimo, informing you of a recent heavy cloud burst which occurred and caused delay, as a considerable mass of debris was carried into the tunnel for 50 feet. In order to guard against a repetition of such a rare occurrence, I have had several men blasting up large rocks in the bed of the river, above and below the entrance to the mine, for the purpose of giving the water all the run that is possible. The tunnel is again cleared, and I am pleased to state that the men completed the work of repairs on Saturday last, since which they have been engaged in removing the large rocks and also securing the loose matter above the level in the course of Will's Vein. As soon as this work is finished (in a day or two) (development will be commenced forthwith on this vein. I decided to put a fresh pair of men on Monday last to stope the bottom of the level between Will's Vein and the forebreast of the tunnel, but after careful consideration, knowing that the work would take some little time to accomplish, I thought it best to let its stand for the present. Therefore, I have commenced the driving of the tunnel towards the San Miguel gold bearing vein. The ground in the face of the drift, although stiff, seems rather favourable for breaking. After a few days' work I shall be better able to judge the character of the ground, and will set the end to drive by contract, and use all necessary means to get it pushed ahead.—Ventilation. Owing to the long distance, the small pipes In ground in the lace of the ground, and will set the end to drive by contract, and use all necessary means to get it pushed ahead.—Ventilation. Owing to the long distance, the small pipes proved to be of little service, therefore I am replacing them by a much larger (5 inches in diameter) size. The 50 yards I had from Guadalajara are already fixed, also 20 yards that I have had made out of the galvanised sheets on the mine. The men are making them as fast as they possibly can. Air is supplied by a blast fernace built of brick, erected on the west side of the entrance to the tunnel. I am pleased to say it is answering the purpose remarkably well.—Mill House. This work during the past fortnight has been somewhat retarded. The recent flood washed a lot of waste matter from the mountain into the building, also filled the tank pits with water, and Friday last being a general holiday (San Pedro), caused at least a delay of three days. Notwithstanding these hindrances, I am glad to say that the men are making good progress. The masons are now in course of constructing the back and side walls of the rock-breaker room. These walls from the floor when raised will be fully 17 feet in height, and of much greater width. The material now used is of a very much heavier kind, for the purpose of resisting any slip or pressure that may occur in the mountain, if nothing intervenes the heavy work of the house will be completed in two weeks.—Machinery. The machinery is (with the exception of a few more bolts and other small things) ready for removal, but cannot be shifted until the building is in a fit state to receive it, — Excavating. At this point men in the past fortnight have been engaged in blasting up rocks for building. This work will soon be finished and the men thereon will be employed in another part of the mine. All other work is being carried on in the same persistent manner as usual. I may remind you that now development has taken place it well be my earnest endeavour to posh the tunnel ahead, as fast as circumstance it will be my earnest endeavour to pash the tunnel ahead, as fast as circumstances will permit, to cut the great object in view (San Miguel gold bearing vein), and, when this is effected. I have strong reasons for believing that a very rich and valuable discovery will be met with, which cannot other than tend to considerably angment the value of the property.

MILLS DAY DAWN UNITED.—Mine manager's report fortmight ending June 4: Underlie shaft deepened 16, total from plat

met wite, which cannot other than tend to considerably angment the value of the property.

MILLS' DAY DAWN UNITED.—Mine manager's report fortnight ending June 4; Underlie shaft deopened 16, total from plat 56 feet. No. 8 level west driven 12 feet, total from plat 156 feet. The country is improving and looks favourable for a reef, which we hope to cut about 25 feet further. No. 7 level hanging wall reef averages 4 feet of medium quality stone.—No. 7 level west. Winze deepened 10 feet, total from level 42 feet. This is being sunk on the hanging wall and carries 2 feet of reef, leaving good stone on the footwall. Stopes over this level carry from 8 to 10 feet of good atone.—No. 6 level west. Winze has been sunk 26 feet on 2 feet of fair quality stone. The footwall drive has been driven 13 fees, total from main level 95 feet. Intermediate Level. Driven 22 feet, and holed to the footwall stope. The reef in this level and stopes averages 3 feet of good quality stone. The drive going east from this level has been driven 22 feet, No. 5 east stopes carry 6 feet medium quality stone.—No. 5 Level west. The winze in this level has been sunk 11 feet; total from Level, 35 feet. Over this level the reef averages 5 feet of fair quality stone.—No. 4 Level east. Stopes over this level average 6 feet of poor quality stone,—No. 4 Level east. Stopes over this level average 6 feet of poor quality stone,—No. 4 Level west, Leading stope carries 2 feet

of medium quality stone.—No. 3 Level east. Have started a cross out going into the footwall on a leader 4 inches thick, which has opened out to 10 irches of good quality stone.—Stone raised. 2000

by Mr. Harvey in October last, when he visited and inspected the Moonstone Mine, has informed you that he considered it possible the shoot which has given such rich returns to the tributers may be struck again in the deeper ground between No. 1 and No. 4 south levels, by driving southwards, for this reason, he added, that the shoot of ground dips south-west. It was decided to run a level south of the main shaft, which is about 800 feet down the underlie, with a view to discover the shoot, and the directors have great satisfaction in being now able to inform the shareholders that it was struck last May, as announced in the report just to hand from the mine manager. A creshing of 20 tons of the ore taken from this shoot was cabled on July 17 as yielding 225 onness of retorted gold, lor 114 ounces per ton of ore. Itstill remains to ascertain the width of the shoot, which will probably require a considerable time. The ore extracted during the driving of this south level and from the shoot itself has yielded 322 ounces of retorted gold, the value of which will probably be about £700. The cable received on the 17th ultimo stated that further crushing will be commenced in seven

extracted during the driving of this south level and from the shoot itself has yielded 322 ounces of retorted gold, the value of which will probably be about £700. The cable received on the 17th ultimo stated that further crashing will be commenced in seven weeks, when additional knowledge of the value of the ore in this shoot will be obtained. There are at present two sets of tributors working the same shoot in the upper portion of the mine. One of those leases will expire on September 12, the other on December 1, when the company will resume full possession of the mine.

MOUNT ZEEHAN (Tasmania).—Manager reports for week ended June 19: Argent Section, Main engine shaft, No. 6 lode, 30 feet level south stope. Ore raised, 21 tons good seconds and 4 tons firsts. Lode 9 inches wide of good seconds. 72 feet level south extended 7 feet; total, 170 feet. Lode cut off by a change of country, but expect to meet with it again in a few feet.—Stope. Ore raised, 69 tons good seconds; lode 4 feet wide.—72 Feet Level North Stope. Ore raised, 25 tons good seconds; lode 1 foot 6 inches wide.—132 feet level south extended 14 feet 3 inches; total, 138 feet 9 inches. Lode averages 2 feet wide, but poor. Have started to rise. Crosscut west to No. 7 lode extended 7 feet 3 inches; total, 76 feet 9 inches. Ground has become tighter for driving.—No. 3 lode, No. 2 shaft. No. 1 level north extended 14 feet; total, 44 feet 6 inches. Lode 3 feet wide of carbonate of iron, carrying a string of coarse galena. No. 1 level south extended 8 feet; total 28 feet 6 inches. Lode 5 feet 6 inches wide, with more galena showing in the face. Concentrator has been run 45 hours and milled 144 tons seconds for 27 tons 10 cwts., concentrator containing about 20 tons 13 cwts. lead, and 2179 ounces of silver.

No. 7 NORTH-EAST QUEEN.—The following fortnightly report has been received from the mine, dated Charters Towers, June 8:

NO. 7 NORTH-EAST QUEEN.—The following fortnightly report has been received from the mine, dated Charters Towers, June 8: During the fortnight, Boberts and party have crushed 102\frac{1}{2} tons from the stulls over No. 3 level for 21 ounces 5 dwts, retorted gold. Since the stulis over No. 3 level for 21 ounces 5 dwts, retorted gold. Since the crushing the party have given up the block. Hall and party under No. 1 west level have crushed 9½ tons for 6 ounces 3 grains of gold. McFadden and party crushed 7½ tons for 2 ounces 8 dwts. from over No. 4 west; they have given up the tribute, but are taking another block adjoining Perry and party under No. 3 east. Perry and party have also crushed 23½ tons for 18 ounces 18 dwts. 3 grains of gold. Goninon and party have about 70 tons on the surface from the stulis over No. 3 level. Show and party have from 4 to 8 inches

of gold. Goninon and party have about 70 tons on the surface from the stulls over No. 3 level. Shaw and party have from 4 to 8 inches of stone over No. 1 east level. Total amount of stone raised by the various parties 40 tons.—(Signed) H. Davies.

NEW MINERA.—Mining report for the two weeks ending July 27: 275 yard level, near forebreast west. Five men on tribute; lode worth from 2½ to 3 tons lead ore and blende per fathom, estimated to produce 10 tons per month.—West of winze. Two men on tribute; lode worth 3 tons blende per fathom, estimated to produce 6 tons per month.—295 yard level, west of winze. Four men on tribute; lode worth 2½ tons blende per fathom, estimated to produce 9 tone per month.—West of pass. Four men on tribute; lode worth 2½ tons blende per fathom, estimated to produce 9 tons per month. per month.—West of pass. Four men on tribute; lode worth 2½ tons blende per fathom, estimated to produce 9 tons per month.—East of winze. Two men on tribute; lode worth 2 tons per month.—East of winze. Two men on tribute; lode worth 2 tons blende per fathom, estimated to produce 4 tons per month.—315 yard level, driving east of main crosscat. Four men driving in strong lode very wide and containing a little lead ore.—West of incline shaft. Two men on tribute; lode worth 2 tons blende per fathom, estimated to produce 4 tons per month.—East of incline shaft. Six men on tribute; lode worth 2 tons blende per fathom, estimated to produce 10 tons per month.—Near forebreast west. Four men on tribute; lode worth 2½ tons blende per fathom estimated to produce 8 tons per month.—West of winze. Two men on tribute; lode worth 2½ tons blende per fathom, estimated to produce 5 tons per month.—Dressing, 30 tons blende have been sent off since last report, making the total quantity sold 4242 tons blende and 1720 tons lead ore.

SOUTH AUSTRALIAN PETROLEUM FIELDS.—The manager, writing under date June 30th, says:—We have none of our new

4242 tons blende and 1720 tons lead ore.

SOUTH AUSTRALIAN PETROLEUM FIELDS,—The manager, writing under date June 30th, says:—We have none of our new wells deep enough yet to strike oil since I last wrote to you. We have been drilling every day, and I expect in the course of two weeks to wire you of good success. I am sending you a copy of the map I got from the Government Office. We show on this map all our new operations and well bores, and a portion of our roads. The Government has cat and mettled a new road alongside of our grant on the one edge that would be running south and west, which is a great boon to us getting wood and using it for drawing our boilers and engine on. Oil at the end of our pipe line selling for three rupees, and everything is going on prosperous. I hope soon to strike more oil. Writing under date of July 2nd, he says:—Since writing to you on Saturday, the 30th ult., we have struck what seems to be a nice well in our No. 75. We have got 19 maunds out of it to-day. The lightest oil that I have struck yet on the territory. We have struck this on the side of the mountain at a very shallow depth of 120 feet. I will wire you from Akyab the first opportunity that I have of going there. I am of opinion that this oil is filtered out of the bottom of the mountain. I will bore on the top of this mountain as soon as I can get to it. I am of opinion that we will strike oil in all our wells that we have now started up to drill. I will writefull particulars next week. As the rains are on, I have to get this mail to the post office to-morrow, the 3rd, as our steamers very often during the monsoon time come one day earlier, or one day later, as the weather permits them for sailing.

DE LAMAR.—Copy of Captain J. W. Plummer's monthly report for Jone: Mining, ore breaking department. 77 feet vein, above the 5th level. The vein has averaged 3 feet wide, and assayed \$21.65 in

DE LAMAR.—Copy of Captain J. W. Frummer's monthly report for Jone: Mining, ore breaking department. 77 feet vein, above the 5th level. The vein has averaged 3 feet wide, and assayed \$21:65 in gold and \$1 in silver equals \$22:65 per ton.—77 feet vein, above the 6th level. The vein has averaged 4 feet wide, and assayed \$1:35 in gold and \$46:20 in silver equals \$47:55 per ton. This stope is now finished, being worked up to the "dyke,"—77 feet vein, above the 7th level. The vein has averaged 8 feet wide, and assayed \$15:75 in gold and \$7:63 in silver equals \$23:38 per top.—77 feet vein, above gold and \$7-63 in silver, equals \$23-38 per ton.—77 feet vein, above the 8th level east. The paying portion of the vein has averaged 2 feet 6 inches wide, assaying \$3 in gold and \$23 in silver, equals \$26 per ton.—77 feet vein, above the 8th level, west intermediate. The vein has averaged 4 feet 6 inches wide, assaying \$31-80 in gold and \$4 in silver equals \$35-80 per ton.—77 feet vein, below 8th level. The vein, which has been removed, has averaged 4 feet wide. The assay value has fluctuated. Its average has been \$14 in gold, and \$2 in silver, equals \$16 per ton. Present face of stope assays \$22 per ton, chiefly gold,—No. 5 vein, above the 6th level, The voin has averaged 4 feet 6 inches wide, assaying \$23 in gold, and \$3 in silver, equals \$26 per ton.—No. 5 vein, above the 6th level, hanging wall section. The vein has averaged 3 feet 6 inches wide, assaying \$28-75 in gold, and \$3 in silver, equals \$31-75 per ton.—No. 5 vein, above the 8th level. The vein has averaged 3 feet 9 inches wide, assaying \$26 in gold, and \$3 in silver, equals \$29 per ton.—No. 5 vein, above the 9th level. The vein has averaged 3 feet 9 inches wide, assaying \$26 in gold, and \$3 in silver, equals \$29 per ton.—No. 5 vein, above the 9th level. The vein has d \$7.63 in silver, equals \$23.38 per top.—77 feet veip, above averaged 3 feet 9 inches wide, assaying \$26 in gold, and \$3 in silver, equals \$29 per ton.—No. 5 vein, above the 9th level. The vein has averaged 5 feet wide, assaying \$20 in gold and \$6 in silver, equals \$26 per ton.—No. 6 vein, above 9th level. The vein has averaged 2 feet 6 inches wide, assaying \$27.50 gold, and \$10 in silver, equals \$37.50 per ton.—No. 7 vein, above 7th level. The vein has averaged 3 feet wide, assaying \$17 in gold and \$4 in silver, equals \$31 per ton.—No. 7 vein, above the 8th level. The vein has averaged 3 feet wide, assaying \$22.50 in gold, and \$1.25 in silver, equals \$23.75 per ton.—No. 7 vein, above the 9th level. The vein has averaged 3 feet 6 inches

wide, assaying \$34 in gold, and \$11 in silver, equals \$45 per ton.—
No. 8 voin above the 8th level. The voin has averaged 2 feet 3 inches wide, assaying \$30 in gold and \$11 'd0 in silver equals \$41 '40 per ton.—
No. 9 vein, above the 7th level. The vein has averaged 5 feet wide, assaying \$27'75 in gold and \$6 in silver equals \$33'75 per ton.—
No. 9 vein, above the 8th level. The vein averages 8 feet wide, assaying \$25 in gold and \$4'60 in silver equals \$29'60 per ton.—No. 9
vein, above the 9th level. The vein has averaged 3 feet wide, assaying \$25 in gold and \$7 in silver equals \$39 per ton.—Prospecting department. 77 feet vein, 9th level east, hanging wall branch.
Reported length last month 122 feet 9 inches; advanced for June
11 feet 3 inches; total length 134 feet. The section of the vein,
carried in the level, has averaged 2 feet 6 inches wide, assaying \$26 in
gold \$2 in silver equals \$28 per ton.—No. 5 vein, 10th level east. Level
was advanced for the month 28 feet, total length 78 feet. The vein
has averaged 3 feet wide, and assayed \$19 in gold and \$2 in silver,
equals \$21 per ton.—No. 7 vein, 7th level west. Advanced for the
month 30 feet, total length 141 feet 6 inches.
The vein is 7 feet
wide, assaying \$25'75 in gold and \$1 in silver, equals \$26'75 per ton.
—No. 9 vein, 7th level west. Advanced for the month 33 feet 9
inches, total length 245 feet 3 inches. The vein is 4 feet 6 inches
wide, assaying \$30'50 in gold and \$1'50 in silver, equals \$32 per ton.
—No. 9 vein, 8th level west. Advanced for the month 34 feet 6 inches
wide, assaying \$20 in gold and \$5 in silver, equals \$25 per ton.—No. 9
vein, 9th level east. Advanced for the month 34 feet 6 inches, total
length 256 feet 9 inches. The vein is 2 feet 9 inches, total
length 256 feet 9 inches. The vein is 5 feet 6 inches, total
length 256 feet 9 inches. The vein is 5 feet 6 inches, total
length 256 feet 7 inches. The height of this raise is 35 feet 6
inches. The vein averages 3 feet wide, assaying \$30 in gold and \$1
in silver, equals \$31 per ton In driving the level several bunches of good ore are found.—Sommer-camp group. During the past month a voin has been intersected showing 2 feet of ore, assaying at the point of intersection 300 per ton. The crosscut is in highly mineralised porphyry.—Milling department. This department has been operated during the past month with great steadiness. Owing to the proximity of the national holiday and the usual clean-up day, it was decided to make one stoppage only. On July 4 the mill was shut down; on the 5th it stopped eight hours, during which time a rapid clean-up was made. In consequence of the strike on the railroad, both ballion and amalgam have been stored, waiting for the railroad to open. Table of work performed for June. Number of wet tons crashed 3,997.04, number of dry tons crashed 3,576.93, assay value of the Table of work performed for June. Number of wet tons crashed 3,997-04, number of dry tons crushed 3,576-98, assay value of the pulp \$27-19, gold \$22-59, silver (at 60 cents) \$4-60, assay value of the tailings \$4-79, gold \$4-17, silver \$0-62, number of Doré barsproduced 19, number of ounces pure gold produced 2,652,394, number of ounces fine silver produced 26,334-18, value of gold produced \$53,047-88, value of silver produced \$15,800-50, ore shipped during the month 7,707-86, bullion differences \$1,552-52, miscellaneous revenue, \$737, total \$78,845-76, deduct all expenses for the month \$36,789-53, estimated profit for month (or at \$4-90 to £ sterling, £8582) \$42,056-23.—Pelton wheel. The wheel has worked continuously during the month, with the exception of one break in the dicth, short/duration, fonfune 2.—Louise creek ditch. The fluming has 0sen resumed, and the work keeps pace with the delivery of the lumber. Everything about the premises is in good order, and each department moves satisfactorily.

QUEEN'S BIRTHDAY UNITED.—The following mail advice has been received from Mr. W. T. Hansford, the company's local secre-

QUEEN'S BIRTHDAY UNITED.—The following mail advice has been received from Mr. W. T. Hansford, the company's local secretary at Danolly, dated June 25: Queen's Birthday Mine, main shaft. At 700 feet level we have started the crosscut and driven in 10 days 12 feet 6 inches; total distance is now 168 feet from the level. Quartz leaders lying east are coming in which is encouraging. Machinery in good order.—Centre shaft. During the past fortnight our discoveries are most important,—Engineer Watts reports: On the 14th inst. we struck some excellent stone gold-bearing at the 270 feet level; the reef is 5 feet wide, and gold is seen freely in the ore. There is no doubt that this run of payable quartz is dipping north into virgin and unworked ground. I believe this will prove a most valuable discovery. The stopes south of the shaft are improving as we rise towards the 210 feet level. The reef at this point is 3 feet wide, and good gold bearing quartz is showing in the face. From present indications the out look is very encouraging.—Tailings, We have put through the batteries 100 tons taken indiscriminately, which has yielded 10 ounces gold, returning more than 50 per cent profit on treatment. This gold, returning more than 50 per cent. profit on treatment. This sand is worth as much after leaving the batteries, gold being left in the pyrites untreated. The above return on 150,000 tons possessed by the company would show a profit of £37,500.—Hansford.

COMPANIES AND LEGAL ANNOUNCEMENTS.

Advertisements are inserted in this column at the rate of 9d. per line with a minimum charge of 7s. 6d.

CHAMPION REEF GOLD MINING COMPANY OF INDIA (LIMITED). a MEETING of the Directors of the Company held to-day,

IT WAS RESOLVED—
"That an Interim Dividend, free of Income Tax, of 2s, per share be, and is hereby declared, payable on the 12th day of September, 1894, to the Shareholders on the books of the Company on the 29th August, 1894, and that the Transfer Books be closed during the said 29th August,

By Order, JOHN GARLAND, Secretary.

6 and 7, Queen Street Place, London, E.C., August 2, 1894.

EUROPEAN EDITION.

Annual Subscription (post free) 12s. 6d. (U.K.), abroad 14s.
Single Copies Is.; (post free) 1s. 3d.

SAMPLE BACK NUMBER SISPENCE (TO COVER POSTAGE, &c.)

THE ENGINEERING MAGAZINE:

America's Leading Illustrated Industrial Magazine (Monthly.)

CONTENTS OF THE AUGUST ISSUE (No. V., Vol. VII.)

The Enormous Annual Loss by Fire—Edward Atkinson.

The Battle-Ship as a Fighting Machine—George W. Molville,
Colorade's New Gold Camps—Arthur Lakes.

The Early Life of Great Inventors—Leicester Allen.

The Prevailing Jealousy of Wealth—William Nelson Black,
Chicago Drainage Channel and Waterway—G. P. Brown,
Electric Welding and Metal Working—Hermann Lemp.
Beginnings and Future of the Arc Lamp—B. M. Hummill.
Theatre-Building for American Cities (I.)—Dankmar Adler,
Electricity Direct from Coal—William Oswaid.

The Magazine also contains the following Editorial Departments, under the charge of Experts on "Electricity," "Mensing and Metallurgy," "Architecture," "Industrial Chemistry," "Mining and Metallurgy," "Railways," "Mobine—Shop Praceles"; and an invaluable Index to Current Technical Literature. CONTENTS OF THE AUGUST ISSUE (No. V., Vol. VII.)

GEORGE TUCKER, Salisbury Court, Fleet St., London, E.C. To be obtained of all Bookseilers and Newsagents, and at the Railway Bookstalls,

WANTED.

Prepaid Advertisements are inserted in this column at the rate of 8d. per line with a minimum charge of 4s.

TO MINING COMPANIES.

A S CHIEF MECHANIC OR LEADING HAND, POSITION WANTED by Advertiser with extensive Home and Foreign Experience in Mining, Milling, and Smelting Works. Strictly steady, reliable, and persevering. Speaks Spanish. Excellent references.

"HORNO," MINING JOURNAL Office, 18, Finch Lane

A NALYTICAL CHEMIST and ASSAYER DESIRES POSITION in Works Abroad. Seven years' experience and control of Electro Copper Refinery.

Address, "ARTURO," 30, Bryn-y-mor Terrace, Swanses.

POREMAN, Erector of Machinery and Mining Carpenter on Gold Mines, DESIRES SITUATION Abroad; thoroughly competent, steady, and trustworthy; 14 years' practical experience in Indis, South Africa, and South America. First-class testimonials and references from former employers; age, 36 years. Address, J. A. Manson, 36, Victoria Street, Aberdeen, N.B.

WANTED, SITUATION as Manager, Assistant Chemist or Assayer at works or mines at home or abroad. Address

WANTED, VOLUME for the year 1853 of "THE MINING JOURNAL."
Address, "Box 37," MINING JOURNAL Office, 18, Finch Lane, London, E.C.

TO CAPITALISTS.

£9000 will PURCHASE a VALUABLE CONCESSION for SILVER-LEAD. The ore, of which large amounts can be easily extracted, assays from 200 to 500 cunces of silver per ton, can be brought to Swansea at an outside cost of £15 per ton. In addition to the Purchase Money, a further Working Capital of about £3000 would be required. per ton. In addition to the Furcusase Money, a Laborator Capital of about £3000 would be required.
Fullest particulars given on application to "SILVER-LEAD," care of THE MINING JOURNAL, 18, Finch Lane, London, E.C.

FOR SALE.
*** Prepaid Advertisements are inserted in this column at the rate of 8d. per line with a minimum charge of 4s.

VALUABLE GROUP GOLD AND SILVER MINES FOR SALE.

In IDAHO, U.S.A.; 10 years' development work. Assays \$550 per ton Gold. Easily worked at small expense.

Mine adjoining has paid Half Million dollars profits for past

20 years.
Under full operation these mines can be made the largest and most profitable in United States.

Send for terms and particulars to

J. H. SPRING, Sole Owner,

2547, Willington Street, Philadelphia,

Pa., U.S.A.

THE MINERAL OIL MANUFACTURING and MINING PLANT belonging to the BURNTISLAND OIL COMPANY LIMITED is for SALE by PRIVATE BARGAIN.

Catalogues can be had and all information obtained on application to the MANAGER, Oil Works, Burntisland, N.B.

SHIPPING.

UNION LINE.



TOR SOUTH AFRICAN GOLD FIELDS.—
WEEKLY SERVICE.—CAPE OF GOOD
HOPE, NATAL, and EAST AFRICAN ROYAL
MAIL STEAMERS.—The UNION STEAMSHIP
COMPANY'S ROYAL MAIL and INTERMEDIATE STEAMERS will Sail as follows for
the SOUTH and EAST AFRICAN PORTS, to
ZANZIBAR, calling at LISBON, MADEIRA,
E.

and TENERIFE.

Apply to the UNION STEAMSHIP COMPANY (Limited), Canute Road, Southampton; 14, Cockspur Street, London, S.W.; and South African House, 94 to 96, Bishopsgate Street Within, London, E.C.

CASTLE LINE.—CAPE & NATAL MAILS.



WEEKLY SERVICE FOR THE GOLD
FIELDS OF SOUTH AFRICA.—The
CASTLE COMPANY'S STEAMERS leave
LONDON (East India Dock Basin, Blackwall)
every FRIDAY, and sail from SOUTHAMPTON
every SATURDAY.

Hawarden Castle (via Madeira) ...

Hawarden Castle (via Grand Canary and St. Helena ...

Horlam Castle (via Madeira) ...

Harieoh Castle (via Grand Canary)... London. Bouthampton. Aug. 17 Aug. 24 Aug. 31

For Madagascar and Mauritius.

Return tickets to all Ports.

Free Tickets by Rail from Waterloo to Southampton.

Apply to DONALD CURRIE and Co., 3, Fenchurch Street,

London, E.O.

NORTH QUEENSLAND REGISTER

THE LEADING NORTH QUEENSLAND WEEKLY.

PUBLISHED AT CHARTERS TOWERS, NORTH QUEENSLAND. MINING A SPECIALITY.

Subscription £1 4s. per annum; including postage to Great Britain, £1 15s. per annum, Address communications to-

N MINES PRINTING AND PUBLISHING COMPANT, CHARTERS TOWERS, QUBENSLAND, THE NORTHERN MINER P.

675 DEGREES FIRE TEST.

MASTER MECHANICS, Purchasing Agents, Engineers and Practical Builders of costly Steam Plants and Locomotives, &c., will be pleased to know that a Lubricant is now produced of such extraordinary high Fire Test as to make it proof against the great heat to which it is subjected, and is, therefore, a PERFECT LUBRICATOR where products of lower grade and fire tests pass off at once, leaving the parts subjected to wear, or greatly increasing the consumption of oil,

"VALVE-OLEINE" is a product in the highest state of filtration, is of the greatest viscosity, is entirely free from all acids and absolutely non-corrosive, and without doubt the finest and most thoroughly reliable CYLINDER LUBRICANT now on the market, and will naturally Lubricate 200 to 30) per cent. more than products of lower test.

It is not only the BEST but the most ECONOMICAL lubricant. Manufacture and Sale controlled exclusively by

The Reliance Oil and Grease Co., CLEVELAND, OHIO, U.S.A.

AGENTS WANTED EVERYWHERE.

Write for Full Particulars and our New Catalogue of large line of products. SAMPLES FREE.

MANUFACTURERS OF ALL KINDS OF

SAFET

OF THE BEST QUALITY FOR USE IN MINING, QUARRYING, SUBMARINE, AND ALL OTHER BLASTING OPERATIONS. SPECIALLY PREPARED to SUIT any CLIMATE.

Works: SCORRIER, CORNWALL.



IMPROVED

Winding Indicators WITH

INDICATING SIGNAL BELL. COMBINED.

As shown in Illustration.

Or either of the two separately as required.

Made to suitany Winding Engine or for hauling purposes; with Bell, to denote when to cut of steam; which can be altered in a few minutes to ring at any part required.

PRICES AND PARTICULARS-

Parkin,

LIVERSEDGE, YORKS.

Watch this Advertisement every other week.

SOLE AGENTS FOR SCOTLAND Messrs. ARCHD. BAIRD & SON, 59-61, Waterloo Street, Glasgow.

Export Agent :- Mr. STEPHEN HUMBLE, Junr., 9, Victoria Street, Westminster, S.W.



"LITTLE GIANT" for developing Water Power with any fall from 3 feet and upwards.

Little Giant Turbine,

CATALOGUES FREE.

S. HOWES. 64, MARK LANE, LONDON.

Telegrams: BARBEAU, LONDON.

A POLICE SPY who had the hardingod to make his way into a thieves kitchen in one of the worst districts of South London was somewhat roughly handled a week or two ago, it appears he happened to be known to one of the habitus of the place, and the result was that he narrowly escaped with his life. Still more recently a man in South London was attacked by indigestion. Headache, loss of appetite, and low spirits all joined in the attack, and the poor fellow thought he could not escape with his life, when some brue friend came to his rescue and recommended him to take Holloway's Pills. He took the advice and Pills, with the result that he is now a happy and a healthy man.

BUSINESS

AERIAL ROPEWAYS.

"OTTO" SYSTEM.

R. E. COMMANS (late Commans and Co.), 6, Queen Stree Place, London, E.C.

ASBESTOS.

THE UNITED ASBESTOS COMPANY (Limited),
Dock House, Billiter Street, London, E.C. Asbestos Goods of
the highest quality.

CONCENTRATORS.

THE CLARKSON-STANFIELD CONCENTRATOR (Limited). New system for the treatment of gold, silver, copper, lead, and other ores. Address, 6, Colonial Avenue, Minories, London, E.

EXPLOSIVES FOR MINING.

NOBEL'S EXPLOSIVES COMPANY (Limited),
Glasgow. Manufacturers of Gelignite, Gelatine - Dynamite,
Dynamite, Detonators, Electric Detonator Fuses, &c., &c.

IRON BUILDINGS.

ISAAC DIXON & CO., Liverpool, Iron roofs, Houses, and mining machinery buildings of every description.

"JODELITE."

(REGISTERED.)

JOSEPH DEE, 5, Cross Street, Manchester. The Best and Cheapest Preventative of Dry Rot, Decay in Timber, and Damp Walls, Wood Paving Blocks, Ropes. &c.

LUBRICATING OILS.

BEST QUALITY-LOW PRICES. Send for Samples and Prices.

M. H. DAVIS and SONS, ABERYSTWYTH.

MERCHANTS AND ENGINEERS.

HAWLEY and CO., SOUTH AFRICAN MERCHANTS AND ENGINEERS.

Engineer's Agency & Show Rooms at Johannesburg, Transvaal.

Engines, Boilers, Pumps, Dynamos, Brickmaking Machinery, Mining Tools and Machinery, Bioyoles, Type Writers, &c., &c,

P. O. Box 558, Johannesburg, S.A.R. Head Office: 11, Queen Victoria Street, London, E.C.

THE MOZAMBIQUE ORE REDUCTION AND ENGINEERING COMPANY (LIMITED)

Undertake to CRUSH, MILL, PURCHASE, or ASSAY Auriferous and other Ores in the Territory of MOZAMBIQUE, South-East Africa.

Also to SUPPLY, ERECT, or REPAIR MINING PLANT, MACHINERY, STORES, &c.

Companies, Prospectors, and Explorers interested in the Gold Bearing Reefs of South-East Africs, may obtain further information on Application to the

ARY, at 11, Poultry Chambers, LONDON, E.C. SECRETARY

METAL PERFORATORS, &c.

J. & F. POOL,
METAL PERFORATORS & WIRE WEAVERS
COPPERHOUSE, HAYLE, CORNWALL.

SPECIALITIES: All descriptions of Perforated Metal Plates Stamps' Battery-Screens, Wire Gauze and Sieves for Foreign and Home Mining, and other Purposes. Export orders carefully and promptly executed.

MINING INSTRUMENTS.

JOHN DAVIS & SON, All Saint's Works, Derby; and 118,
Newgate Street, London, Mathematical instruments and Newgate Street, Le miner's safety lamps.

MINING MACHINERY.

HATHORN, DAVEY and CO.,

3, PRINCES STREET, WESTMINSTER, S.W., AND AT LEEDS.

FRASER & CHALMERS (Limited), 43, Threadneedle Street, London, E.C. Mining machinery of the most approved design.

GEORGE GREEN, The Foundry, Aberystwyth. Every description of Mining Machinery. Specialities—Crushing and Concentrating Plants, Gold Mills, &c.

ROBEY & CO. (LIMITED), Manufacturers of Steam Engines, Mining Machinery, &c. Makers of the Robe Patent Automatic Expansion Gear.—Globe Works, Lincoln.

PUMPING ENGINES.

HATHORN, DAVEY and CO.,

3, PRINCES STREET, WESTMINSTER, S.W., AND AT LEEDS.

ROCK DRILLS.

BROMFIELD - INGERSOLL ROCK DRILL CO. (Limited), Calverley Chambers, Victoria Square, Leeds. Hand Power Rock Drills.

STONEBREAKING MACHINERY.

W. H. BAXTER, Engineer, Leeds. Stone breaking and ore crushing machinery. All highest awards received for 12 years' Guaranteed for economy in power, efficiency and durability over all others. Catalogues free.

GATES IRON WORKS, 78A, Queen Victoria Street, E.C. The Gates Rock and Ore Breaker effects a great saving in power.

TUBE MAKER.

GEO. J. CHATTERTON, manufacturer of lead pipe, block tin pipe, and tinned composition gas tube, Caledonian Road, London, N.

TURBINES.

C. I. HETT, Turbine Foundry, Brigg, England. Manufacturer of 'Pelton Wheels," &c.

MISCELLANEOUS MEETING.

THE NEW TIVOLI.

Despite the vast amount of depression, a very satisfactory dividend is declared

The third annual meeting of the New Tivoli (Limited) was held on Monday, at the Tivoli, Strand, W.C., under the presidency of Mr. HUGH ASTLEY.

The SECRETARY (Mr. Ilford Ibbetson) having read the notice

The SECRETARY (Mr. liford lobetson) having read the notice convening the meeting.

The CHAIRMAN said: Gentlemen, since we last had the pleasure of meeting you, Mr. Morton has gone elsewhere, and our friend and secretary, Mr. Thomas, has died. Those gentlemen have been replaced by Mr. Vernon Dowsett and Mr. lbbetson. I only mention this because I feel perfectly certain that they will give the same attention and seal to their duties as the late manager and secretary. You will see from the report that, although there has been a vast a nount of depression, we have been fairly successful, and are able to pay you what we consider a very satisfactory dividend. (Hear, hear.) I believe the success of the place does not entirely depend upon the efforts of the management or upon the particular show which is exhibited in it; it depends, to some extent, upon its situation. (Hear, hear.) London, I believe, is the centre of the world; Charing Cross is the centre of London, and you know how far we are from Charing Cross. To and from Charing Cross Station every day of the year many thousands of persons must pass, and I am convinced that so long as we keep up an excellent entertainment our audiences will keep good. This hall has been nightly and in the afternoon of Saturday attended consistently by good audiences. From that, I think, we are led to hope and believe that the success of the Tivoli Music Hall will not be of an ephemeral character, that is to say, that it will continue to show steadily improving results, with which you will be thoroughly satisfied. (Applause.) You can see for yourselves, gentlemen, that the condition of the place is as it has always been, bright and pleasant, and I believe it is better advertising that we can adopt; for I constantly hear people saying that they have been once and they mean to go again. It is by this means, and by yourselves recommending it, that a wast deal of good is done to establishments of this kind, Considering the times through which we have passed, which have been felt very se convening the meeting,

The CHAIRMAN said: Gentlemen, since we last had the pleasure

be carried forward to the current year's account."

Mr. H. NEWSON-SMITH seconded the resolution.

Mr. JOSEPH PYKE said that while he had no desire to say one unkind word, or to speak in any litigious spirit, he was anxious to ask the directors a few questions. They had been told by the Chairman that the property they owned was a very good one. That opinion he fully endorsed. He believed there was nothing equal to man that the property they owned was a very good one. That opinion he fully endorsed. He believed there was nothing equal to it, and he thought if the property was put up for auction to-morrow it would fetch the price that the shares were worth to-day. They must recollect that they had a freehold property in a matchless position. He considered, however, that the shareholders ought to get a larger dividend. (Laughter.) They must recollect that music halls had many difficulties to contend against, and were not investments like land and houses; consequently they ought to get a very large dividend, especially at a place of entertainment situated as they were. For a company paying 22½ per cent, he considered their shares stood at a very low price in the market. As to the accounts, he thought they were not full enough. He was aware that some might think that they would be revealing their business to their competitors by publishing fuller particulars, but he contended that it was in their interests to have more information. He wished to know why it was necessary to write off so large a sum for depreciation, and in conclusion remarked that the directors ought to have paid the same dividend as last year, namely, 25 per cent, which they could easily have done if they had not carried so large an amount forward.

A Shareholder asked for particulars of the sundry creditors.

an amount forward.

A SHAREHOLDEE asked for particulars of the sundry creditors.

Mr. NEWSON-SMITH replied that the sundry creditors consisted
of interest on debentures, and the mortgage which was not yet due.

A SHAREHOLDER desired to know what the directors were reserved. og for covering the additional outlay in respect of freehold and assehold premises.

Mr. NEWSON-SMITH replied that they had created a goodwill, and,

leasehold premises.

Mr. NEWSOB-SMITH replied that they had created a goodwill, and, besides, their £5 shares were at a large premium.

In reply to a SHAREHOLDEE, the CHAREMAN stated that they had now commenced operations on the ground adjoining the Tivoli, the plans having been approved by the County Council.

Mr. EVANS thought it was very undesirable to publish the accounts of the company in detail, and he felt convinced that the gentleman who asked for details had not seriously considered what would be the selfect of their publication. In his opinion it would be the height of folly to attempt to publish the details of their profits. They had many opponents to consider, and the publication of details of the accounts might be injurious to the best interests of the company. The dividend, he thought, was sufficient to satisfy the demands of the most avaricious. He considered that the financial position of the company was considerably strengthened by carrying forward the large sum they did rather than dividing the whole. The management, he thought, ought to be congratulated and thanked for the result of the year's working.

Mr. J. A. SMITH said every credit was due to the board of directors for having steered the ship so well as to make the Tivoli the most successful music hall in London. (Applause.)

The resolution was carried unanimously.

The retiring directors, Mr. Hugh Astley and the Hon, Mark P. Bouverie, were then re-elected, and the auditor, Mr. R. Lindsey, was reappointed.

Mr. PXEE proposed a vote of thanks to the Chairman and his

Mr. PYKE proposed a vote of thanks to the Chairman and his

motion was carried unanimously.

Mr. Vernon Dowsett, the manager, was the recipient of a similar compliment, The proceedings then closed.

THERE is no material change in the development in the British Broken Hill Mine at 200 feet level of Marsh's shaft, where it was hoped that the vein followed in the workings on either side of the main south drive would open up into a valuable body of carbonate ore. A small quantity of ore is being able body of carbonate ore. A small quan-removed in the course of driving on the vein.

BANKING.

ESTABLISHED 1851.

BIRKBECK BANK

SOUTHAMPTON BUILDINGS, CHANCERY LANE, LONDON. WO-AND-A-HALP per CENT, INTEREST allowed on DEPOSITS repayable TWO per CENT. on CURRENT ACCOUNTS on the minimum monthly

BAYINGS DEPARTMENT.

So VINGS DEPARTMENT.

For the encouragement of Thrift, the Bank receives small sums on Deposit and allows Interest monthly on each completed £2, The Birkbeck Almanack, with full particulars, post free,

FRANCIS RAVENSCROFT, Manager,

PUBLICATIONS.

. Prepaid Advertisements are inserted in this column at the rate of 8d. per line, with a minimum charge of 4s.

THE GOLDEN QUARTZ REEFS OF AUSTRALIA.

By WILLIAM NICHOLAS, F.G.S., London, WITH ILLUSTRATIONS.

A series of articles especially relating to the Bendigo Gold Field,

PRICE 2s., post free. LONDON:

"THE MINING JOURNAL,"

18, FINCH LANE, E.C., and 3, DORSET BUILDINGS, SALISBURY SQUARE, E.C.

SECOND EDITION.

A NEW GUIDE TO THE IRON TRADE OR MILL MANAGERS AND STOCK TAKERS' ASSISTANT.

By JAMES ROSE, of Batman's Hill Ironworks, Bradley, Near Bilston.

Comprising a Series of New and Comprehensive Tables, practically arranged to show at one view the Weight of Iron required to produce Boiler Plates, Sheet Iron, and Flat, Square, and Round Bars, as well as Hoop or Strip Iron of any dimensions, to which is added a variety of Tables for the convenience of Merchants, including a Russian table

OPINIONS OF THE PEESS.

"The Tables are plainly laid down, and the information desired can be instantaneously obtained."—The Mining Journal, Railway and Commercial Gazette.

"900 copies have been ordered in Wigan alone, and this is but a tithe of those to whom the book should commend itself."—Wigan

"The work is replete on the subject of underground management."—M. BANEK, Colliery Proprietor.

PRICE 8s. 6d. LONDON:

"THE MINING JOURNAL." 18, FINCH LANE, E.C., and 3, DORSET BUILDINGS, SALISBURY SQUARE, E.C.

THE COLLIERY READY-RECKONER AND WAGES CALCULATOR.

BY JAMES IRELAND.

"Will be the means of preventing many disputes between pay clerks and colliers."—The Mining Journal, Railway and Commercial Gazette.

PRICE 1s. 6d, POST FREE.

LONDON:

"THE MINING JOURNAL,"

18, FINCH LANE, E.C., and 3. DORSET BUILDINGS, SALISBURY SQUARE, E.C.

TACKNOTE: A FORM OF LICENCE TO EXPLORE AND SEARCH FOR MINES, MINERALS, &c.

PRICE 1s., POST FREE.

LONDON: "THE MINING JOURNAL,"

18, FINCH LANE, E.C., and 3, DORSET BUILDINGS, SALISBURY SQUARE, E.C.

THE LAW OF MERCHANDISE MARKS.

BY FRANK SAFFORD,

Of the Middle Temple, Barrister-at-Law, and a Member of the London Chamber of Commerce.

PRICE 7s. 6d.

The Law Times says:—" This work will be found thorough and practical."
The Law Journal says:—" We have examined it with some care, and have obsitation in recommending it to the public." LONDON:

"THE MINING JOURNAL,"
18, FINCH LANE, E.C., and 3, DORSET BUILDINGS, SALISBURY SQUARE, E.C.

SURVEYING AND LEVELLING INSTRUMENTS,

Theoretically and Practically Described for Construction, Qualities, Selection, Preservation, Adjustments, and Uses; with other Apparatus and Appliances used by Civil Engineers and Surveyors.

By W. F. STANLEY. PRICE, 7s. 6d LONDON:

"THE MINING JOURNAL," FINCH LANE, E.C., 3, DORSET BUILDINGS, SALISBURY SQUARE, E.C.

MATHEMATICAL DRAWING AND MEASURING INSTRUMENTS, Their Construction, Uses, Qualities, Selection, Preservation, and

Suggestions for Improvements; with Hints upon Drawing, Colouring, Lettering, &c.

By W. F. STANLEY.
Sixth Edition. PRICE, 5s. LONDON:

"THE MINING JOURNAL," 18, FINCH LANE, E.C., and 3, DORSET BUILDINGS, SALISBURY SQUARE, E.C.

THE GLASGOW HERALD

(ESTABLISHED 1782)

LARGEST & LEADING ADVERTISING MEDIUM OUT OF LONDON.

It is next to The Times and The Daily Telegraph, each of which it exceeds in extent of Advertising during several months of the year. It is unrivalled among Daily Papers for the completeness of its Reports of the Mining and Metal Markets, besides Commercial and General News for all classes of the community.

HEAD OFFICES: 65-69, BUCHANAN STREET, GLASGOW. LONDON OFFICES: 65, FLEET STREET.

PUBLICATIONS -- (Continued).

Works by ALBERT F. CALVERT,

THE DISCOVERY OF AUSTRALIA.

An Historical Account of the Discovery of the Australasian Con-tinent; embracing also an interesting record of the voyage of Captain Cook. With Maps and Illustrated Appendix.

"The mongraph, though avowedly based, to a large extent, on the researches of previous writers, is of more than passing interest; and some of its extracts from the journals of the early navigators deserve to be rescued from oblivion, and to be interwoven with tales and more exact knowledge in the pages of this scholarly historical treatise."—Standard.

"There is both an archæological and geographical interest about this book, which has been compiled with much labour and care."—Glasgow Herald.

PRICE 10s. 6d.

MINERAL RESOURCES OF WESTERN AUSTRALIA.

A Descriptive Account of the various Gold Fields, Tin, Copper, and Coal Districts of the Colony, together with an Appendix containing Notes on the Gold Exports, Gold Mining Regulations, and the Wester Operation. the Water Question.

"Mr. Oalvert's interesting little work has made its appearance opportunely. Thanks to the broad and liberal way in which Mr. Calvert has treated his subject, the work appeals to a much wider section of the community than the School of Mines or the Institute of Mining and Metallurgy. The general reader will take it up with pleasure and put it down reluctantly."—Mining Journal.

PRICE 28.

THE COOLGARDIE GOLD FIELD (WESTERN AUSTRALIA).

An exhaustive account of this Famous Field, including interviews with Lord Percy Douglas, Arthur Bayley, Esq., and others, accompanied by a large coloured map of Western Australia.

"Mr. Calvert's book is likely to interest a wide circle of readers. It is written by one who thoroughly understands his subject, who has not only travelled all over Western Australia, but has made himself so intimately acquainted with every gold field that he has now became a recognised authority."—Muning Journal.

PRICE, 1s.

THE ABORIGINES OF WESTERN AUSTRALIA. PRICE 1s.

WESTERN AUSTRALIA AND ITS GOLD FIELDS.

"An admirably conceived digest of the present condition of the colony, and the inducement it offers to emigrants," - The Star. 4º This is a complete guide to the resources of Western Australia,"—Impe. ial and Asiatro Review.

SI

UI

M

Ch

SF

PRICE, 1s.

PEARLS: Their Origin and Formation. PRICE, 1s.

THE FOREST RESOURCES OF WESTERN AUSTRALIA. Price, 1s.

TO BE OBTAINED AT THE OFFICES OF "THE MINING JOURNAL,"

18, FINCH LANE, LONDON, E.C., and 3, DORSET BUILDINGS, SALISBURY SQUARE, E.C.

The SCIENTIFIC PUBLISHING CO.,

(OF NEW YORK and LONDON.)

20, BUCKLERSBURY, LONDON, E.C.

MODERN AMERICAN METHODS OF COPPER SMELTING. By Dr. E. D. PETERS. 8 xth Edition, 1594. Price, 20s. Fut of speciality prepared illustrations of modern plants and processes. "The book is full of information and devoid of the ordinary text-book objections; it bears throughout the stamp of having been written by a practical man thoroughly up in his subject. No m-tailurgist should be without it for purposes of information and reference." Engineering.

THE METALLURGY OF LEAD and the DESIL-VERIZATION OF BASE BULLION. By Dr. H. O. HOFMAN. Third Edition, 1893. Price 30s. Containing 27s illustration: taken from working drawings of the most modern plants.

"As a complete epitome of recent practice in lead smelting, the book will be gladly welcomed by the whole metaliargical world,"—Industries.

THE METALLURGY OF STEEL. By HENRY M. HOWE, A M., 8, B. Third Edition, 1894. Price, 50s.

"The work itself is simply en rmous, unmatched in its minute and thorugh-going comprehensiveness." - Chemical News, We cannot refrain from most urgently recommending the study of this er-eminent work to our readers." - Stahl and Eisen.

THE MINERAL INDUSTRY: Its Statistics, Technology and Trade; being the Annual Statistical Supplement of The Engineering and Mining Journal. Vol. I. from the earliest times up to the end of 1892, 12s. Sd. Vol. II. up to the end of 1893, 25s.

"The spirited policy of The Engineering and Mining Journal annot be too greatly praised or its example too soon followed. Their enterprise in publishing this statistical volume, which also do alis up to date the progress made in all branches of metallurgy and mining, is worthy of the fullest recognition and encouragement."—From Prof. sor A. K. Huntington's Presidential Address to the Institution of Mining and Metallurgy, London, March 21st, 1894.

A Complete Catalogue of the Company's Publications will be sent free on Application.

ADVERTISERS SHOULD NOTE

THE DUNDEE ADVERTISER,

ADVERTISEMENTS are inserted therein, because it is THE LEADING DAILY NEWSPAPER in SCOTLAND North THE LEADING COMMERCIAL DAILY in SCOTLAND out

THE ORGAN of the JUTE and LINEN TRADES.
THE ONLY DAILY PENNY PAPER PRINTED in DUNDER or DISTRICT.

Order all Advertisemen? to appear in THE DUNDEE ADVERTISER, The principal Advertising Medium for Dundee and surrounding Counties, Lospon Office-186, FLEET STREET.

THE ADELAIDE OBSERVER.

Mining men and others in all parts of the world, who wish to secure the ost complete budget of Australian news, and particularly of Mining Intelli nnce, will do well to have THE ADELAIDE OBSERVER regularly posted to

them. Special attention is given to Mining operations in Western Australia as well as in all other parts of Australaala, THE ADELAIDE OBSERVER, Price Bixpence, Posted abroad, 7s. 6d, per narter, or £1 10s. per annum, HEAD OFFICE-GRENFELL STREET, ADELAIDE, SOUTH AUSTRALIA.

THE OBSERVER is a splendid medium for Advertisements of Mining Machinery and requisites.

Advertisements received by all the principal London Agents or at the London address, given above,

THE UNITED ASBESTOS CO.

DOCK HOUSE, BILLITER STREET, LONDON, E.C.



PIONEERS of the ASBESTOS Trade. The ONLY COM-PANY in the WORLD owning and working Asbestos Mines both in ITALY and CANADA. All goods are made at our Works, near London, and are of the best possible description. SPECIFY "SALAMANDER" BRAND.



Depots: NEWCASTLE ON-TYNE, Quay Side; MANCHESTER, 34. Deansgate LIVERPOOL, 33, James' Street; GLASGOW, 54, Rebertson Street; CARDIFF, 135, Bute Street; BRISTOL Provident Buildings, Clare Street ST. PETERSBURG, Gostinoe Dvor, (interior) No. 51.

THE AFRICAN REVIEW.

THE RECOGNISED ORGAN OF THE SOUTH AFRICAN MINING INDUSTRIES.

Publi-hed every Saturday. Price 3d. Subscription 15s., Post Free in the U.K., or £1 1s. abroad, payable in advance. Cheques and Postal Orders to be made payable to WILLS & CANNELL (LIMITED), 10, Basinghall Street, E.C. Subscription forms on application,

Mining News from the WITWATERSRANDT and RHODESIAN GOLD FIELDS, the DIAMOND FIELDS, SOUTH WEST AFRICA, MOZAMBIQUE, &c. Special Correspondence from JOHANNESBURG. KIMBERLEY, and alsowhere AFRICA, MOZAMBIQUE, &c. Special Correspondence from John Nessland, Kimberley, and elsewhere.

RELIABLE STATISTICS. Financial and Commercial Intelligence from Cape Colony, Congo Free State, East Africa, Egypt, Mozambique, Morocco, Natal, Orange Free State, Rhodesia, South West Africa, Transvaal, &c.

The African Review may be obtained at any of Messrs, W. H. Smith and Sons' Bookstalls, or from our Agents as under:—

London—Blair's, Pottle's, and Everett's, Royal Exchange; Leathwaite and Simmonds, 1, Pope's Head Alley. Liverpool—J. Trenwith Wills, African Chambers. Cap: Hown—Twycross and Co. Kimberley—W. Roper, Advertiser Office. Port Elizabeth—W. Harris and Co. Durban—Brunskill and Henderson. Pietermaritzburg—P. Davis and Sons. Barberton—A. W. Bayley and Co., Gold Field News Office, Johannesburg—The S. A. Publishing Company (Limited), Leakes Chambers, Simmonds Street; The Diggers' News P. and P. Co. (Limited), Simmonds Street P Davis and Sons, Pietersburg—Wm. Brown, Zoutpansberg Review. Fort Salisbury (Mashonaland)

MACARTHUR-FORREST PROCESS.

TO MINE OWNERS AND OTHERS

Having REFRACTORY GOLD ORES bitherto untreatable at a profit, the MACARTHUR-FORREST (PATENT) PROCESS OF GOLD EXTRACTION offers a solution of the difficulty.

The chief features of this Process are:-

SIMPLICITY, ECONOMY IN WORKING. and SMALL COST of PLANT.

PROPRIETORS :-

The Cassel Gold Extracting Co. (Ltd.)

Head Office-157, West George Street, Glasgow. London Office-23, College Hill, Cannon Street, E C. Africa - The African Gold Recovery Co. Johannesburg.

Australia — The Australian Gold Recovery Co. (Ltd.), 8, Post Office Chambers, Sydney, N.S.W., Charters Towers, Queensland, and Mr. Geo. S. Fowler, J.P., Adelaide.

United States—The Gold and Silver Extraction Co. of America (Ltd.), Denver, Colo.

Mexico-The Mexican Gold and Silver Recovery Co. (Ltd.), 2a, Calle de Providencia, No. 7, Mexico City, Mexico.

Chili-Mr. Wm. Jones, Calle Almendro, Valparaiso. New Zealand — Mr. A. James, 205, Victoria Arcade, Auckland.

The CASSEL GOLD EXTRACTING Co. (Ltd.) are manufacturers of CYANIDE, suitable for the MacArthur-Forrest Process.

For terms, apply at Head Office of the Company, 157, West George Street, GLASGOW.

THE MONTAN ZEITUNG

For Austria, Hungary, and the Balkan States, Graz (Austria), has the largest circulation of any technical paper on the Continent, and IS THE BEST MEDIUM

to advertise English Machinery and Appliances for

MINING, MANUFACTURING, AND ALL INDUSTRIAL PURPOSES throughout Austria, Hungary, Servis, Bulgaria, Roumania, Turkey

Montenegro, &c. For general information and scale of Advertisements, appl to

F. MANSFIELD and CO.,

2, Lion Chambers BRISTOL

Sold under Copyright Label bearing Trade Mark.

A Distinguishing Feature in these Goods is THREE SEPARATE CENTRE THREADS IN THE COLUMN OF POWDER. The make may always be recognised by these Threads, and users are cautioned to look for them and see that they have the Genuine Article.

MANUFACTURED BY

WILLIAM BENNETT, SONS, & Co., ROSKEAR FUSE WORKS, Camborne, Cornwall.

TELEGRAMS: FUSE, CAMBORNE.

THE SOUTH AFRICAN MINING JOURNAL AND FINANCIAL NEWS: A Journal for Investors, Mining Engineers, and Managers. Edited by E. P. RATHBONE, A.M.I.C.E., M.I.M.E., &c. Special Articles upon Witwatersrand Mines. Fall Reports, Accurate nformation. Indispensable to all interested in South African Mines. Published Weekly at Johannesburg. On Sale, price Sixpence, at the London Office, 151, Cannon Street, E.C. Subscription 25s, per annum.

THE MINERS' DIAL AND THEODOLITE SUPERSEDED. HENDERSON'S PATENT RAPID TRAVERSER.

(Silver Medal of the Royal Polytechnic Society, Falmouth.)

THIS SIMPLE and ACCURATE INSTRUMENT will be found invaluable by the Mine Surveyor, and is equally adapted to the use of Civil Engineers, Surveyors, and Architects generally. High testimonials in its favour have been given by Colonel Bolland, late R.E., and other experts, copies of which, together with a full descriptive Pamphlet and Illustrations, will be forwarded on receipt of 6d. in postage stamps.

HENDERSON and SON, Civil and Mining Engineers, TRURO.

The ANCASHIRE PATENT BELTING HOSE COMPANY.

(MANUFACTURERS).

Mining Specialties:--

LANCASHIRE" Patent Belts (Waterproof. Heatproof. Rotproof. The Original and Genuine Hair Belting).

WIDE "CARRIER" Belts.

(For Collieries, &c. In Hair, Hemp, or Cotton. Any required thickness).

HOSE PIPING—Suction and Delivery.

(Vulcanized Rubber and Canvas, or Seamless-woven Flax).

All other kinds of Belting, Hose, and Accessories for Collieries, &c., &c.

Send for complete Illustrated Catalogue to

The Mills, Tortworth Street, Manchester.

EL MINERO MEXICANO.

The Mining and Industrial Journal of Mexico. ESTABLISHED 1873.

Published in the City of Mexico every THURSDAY

in the Spanish Language.

Taken by Mine Owners, Capitalists, Manufacturers, Merchants the richest and most liberal people, all over Mexico.

THE BEST ADVERTISING MEDIUM.

MEXICAN PATENT & TRADE MARK AGENCY, 3A, Independencia No. 1, City of Mexico. RICHARD E. CHISM, M.E., Editor and Proprietor.

CORNISH POST AND MINING NEWS

A HIGH CLASS UNIONIST NEWSPAPER.

Specially devoted to Cornish Mining, upon which it contains the fullest and most reliable information published. It is the only eight-paged newspaper printed in the Mining Division of Cornwall.

ISSUED EVERY FRIDAY MORNING.

PRICE ONE PENNY.

The Cornish Post and Mining News Co. (Limited), East Charles Street, Camborne, Cornwal

THE MINERS' SAFETY EXPLOSIVE CO., LIMITED,

SOLE MANUFACTURERS OF THE HIGH EXPLOSIVE

SPECIALLY SUITABLE FOR COAL MINES FROM ITS FLAMELESSNESS; AND FOR ALL MINING & QUARRYING WORK FROM ITS GREAT POWER AND ABSOLUTE SECURITY IN HANDLING.

Ammonite is more extensively used than any other high Explosive in the principal fiery and dusty Mines in Great Britain.

THE CARTRIDGES ARE MADE UP IN METALLIC CASES OR WATERPROOF PAPER CASES.

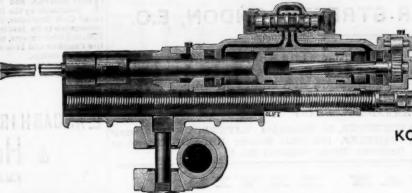
AGENTS IN ALL THE PRINCIPAL DISTRICTS IN THE UNITED KINGDOM.

For full particulars apply to the Offices of the Company, 16, GREAT GEORGE STREET, WESTMINSTER.

Highest Award, International Exhibition o Mining and Metallurgy, London, 1890.

AIR COMPRESSING PLANT.

TRIPODS. TUNNEL COLUMNS. QUARRY BARS.



HIGHEST AWARD & MEDAL WORLD'S FAIR, CHICAGO,

Wrought Iron Tubing and Fittings.

KOHINOOR STEEL for ROCK DRILL and MINERS' BORERS. WIII KEEP a CUTTING EDGE longer than any other Steel.

ADVANTAGES -

SECTIONAL VIEW

1. MINIMUM LENGTH, with 24-inch Feed, length of DRILL and CRADLE only 36 inches. 2. All holes can be angled to great advantage. 3. Minimum Consumption of Explosives.

4. Only positive valve gear actuated by direct pressure. 5. Valve action equally satisfactory at all pressures. 6. Wear on Cradle Guides automatically taken up. 7. Feed Screw and Nut relieved of the shock of the recoil. 8. Working parts reduced to a minimum and easy of access.

OF 3% INCH DRILL

A. & Z. DAW, MANUFACTURERS. PATENTEES SOLE AND Street, London,

BEGISTERED TELEGRAPHIC ADDRESS - "GULDNES, LONDON," A.B.C. CODE.

ON VIEW AT THE OFFICES, WHERE CATALOGUES, ESTIMATES, AND ALL PARTICULARS CAN BE OBTAINED ON APPLICATION.



EXTERIOR VIEW-Showing Crushing Head.

Manufacturers of Mining Machinery and complete Macadam Plants.

Capacity in Tons of 2000 Pounds.

Size 3-10 to 20 tons per hour. " 7- 40 to 75 , " 2-6 to 12 " 8-100 to 150 " , 5-25 to 40 , , , 8-100 Passing $2\frac{1}{2}$ in, ring, according to character and hardness of material.

GREAT SAVING IN POWER. Adjustable to any Degree of Fineness.

The principle involved in this Breaker acknowledged to be the greatest success ever introduced into Stone Breaking machinery. Send for Catalogue, containing over 500 references of Contractors, Miners, Railway Companies, Cement Makers, etc.

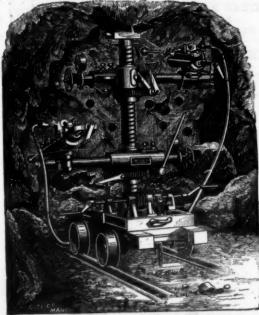
By the use of this machine cubical road metal can be produced at a low cost,

GATES IRON WORKS

73a, QUEEN VICTORIA STREET, E.C., LONDON, ENGLAND. 44, Dey Street, New York, U.S.A.

WORKS: 50, South Clinton Street, Clybourn Ave and Willow Street, Chicago, "AGENTS FOR GATES CORNISH ROLLS PULVERISER."

Simple, Durable, Compact, Dustless, giving a Finished Product direct from the Machine. The best Ore Granulator for Leaching and Concentrating in the World.



Patent Two-Armed Rock Drill Carriage.

THE PATENT "HIRNANT" MINING PLANT. ROCK DRILLS, ROCK DRILL CARRIAGES. AIR COMPRESSORS, STRETCHER BARS. COLUMNS, CLAMPS, AIR PIPES, &c.

NEW PATENT SINKING CARRIAGE. THE MOST RELIABLE MACHINERY KNOWN.

SOLE PROPRIETORS AND MAKERS

Salford, Manchester.

INTENDING PURCHASERS WAITED UPON PERSONALLY.

Agents for South Africa, Messrs. REUNERT and LENZ, Johannesburg.

THE WEST BRITON AND CORNWALL ADVERTISER.

The best Family Newspaper for Cornwall and the West of England

The best Family Newspaper and Appendix of Control of Co

GREENFIELD WORKS, LLANELLY, SOUTH WALES,

Manufacturers of Steel pointed Spades and Shovels, Draining and Grafting Tools, &c. Also Manufacturers of

COPPER WORKS LADLES.

To which special attention is given. Rabble Heads, Paddles, and every description of Light Hammered Work.

THE CHEAPEST, BEST AND SAFEST EXPLOSIVES.

ROBURITE for COAL MINES GATHURST POWDER FOR QUARRIES, METALS, AND CONTRACTORS' WORK.

SAVE TIME, LABOUR AND LIVES

THE ROBURITE EXPLOSIVES COMPANY, LIMITED.

103, CANNON STREET, LONDON, E.C. Works: GATHURST, near WIGAN.

The INGERSOLL-DUPLEX HAND-POWER ROCK DRILL.

Diamond Drills for Hand or Steam Power, for Prospecting, or Deep Boring.



Shewing Drills at Work Sinking and Driving

THE PELTON WATER WHEEL CO.'S MOTORS. A Marvel of Energy and Power.

A Saving of 300 per cent. over ordinary Hand Labour



SEND FOR FULL DESCRIPTION, PRICES, &c., TO

WELLINGTON & CO., 73a, QUEEN VICTORIA STREET, LONDON, E.C.



THOMAS PIGGOTT & CO., ATLAS, BIRMINGHAM, WORKS,



Telegraphic Address:-

"ATLAS," BIRMINGHAM.

Welded and Rivetted Pipes, from 8 inches diameter upwards, for Conduit of WATER, GAS, AIR, and other purposes Large Quantities hve been Sold for Mining Purposes and for Conducting Water to Turbines.

London Office:-

14, GREAT St. THOMAS APOSTLE, E.C.

Telegraphic Address:-

"INTERSECTION," LONDON .



IS RECOMMENDED TO CONTRACTORS THE SAFEST OF ALL EXPLOSIVES.

TONITE is a most efficient and economical blasting agent, and is largely in demand. It does not contain any Nitro-glycerine, and is, therefore, exempt from the dangers of exudation, or of freezing and its attendant process of thawing. THE COMPANY MANUFACTURE

DETONATORS FOR USE WITH TONITE.

Also supply Safety Fuse and Electric Firing Appliances of best description.

Address-THE COTTON POWDER COMPANY (Limited), VICTORIA STREET, E.C. WORKS: FAVERSHAM, KENT. 116, QUEEN

THE STAFFORDSHIRE ADVERTISER. ESTABLISHED 1795.

The Principal County Paper in the Midlands.

Advertisers will find it the BEST MEDIUM for reaching superior class of readers over large area centred by Staffordshire fifth county in population and sixth in wealth.

Published at Stafford every SATURDAY (Price Twopence), and be obtained at Euston and Principal Bookstalls between London. Liverpool, and Manchester.

THE WESTERN DAILY MERCURY.

The Paper for News, The Paper for Advertisements. The Paper for the People.

THE WESTERN WEEKLY MERCURY,

The Paper for the Household,

These Journals have an enormous circulation throughout Devon and Cornwall, and are conveyed by specially chartered trains.

OFFICES: PLYMOUTH,

THE LEADING AUTHORITY ON AUSTRALIAN MINING AND ENGINEERING INDUSTRIES.

THE AUSTRALIAN MINING STANDARD.

A RECORD OF MINING, FINANCIAL, and ENGINEERING PROGRESS (ILLUSTRATED)

Circulates throughout Australia and New Zealand amongst Miners Engineers, Manufacturers, Capitalists, and Investors.

PUBLISHED WEEKLY.

Subscription, 32s, per annum (payable in advance). Cheques and P. O. payable to

H, F, C. MONNINGER, Manager,

124, Clerkenwell Road, London, E.C. HEAD OFFICE -SYDNEY, N.S.W

BRANCHES-MELBOURNE, BRISBANE, ADELAIDE, LAUNCESTON.

THE IRON AND COAL TRADES REVIEW.

With which is Incorporated The Bulletin of the British Iron Trade Association.

The IRON AND COAL TRADES REVIEW is extensively circulated amongst the Iron Producers, Manufacturers, and Consumers, Coal Owners, &c., in all the Iron and Coal Districts. It is, therefore, one of the Leading Organs for Advertising every description of Iron Manufactures, Machinery, New Inventions, and all matters relating to the Iron, Coal, Hardware, Engineering, and Metal Trades in general. general.

Offices of the Review: 222-225, Strand, W.C.

Remittances payable to W. SHAW.

M. P. S. HAMILTON (late Chief Commissioner of Mines of the Province of Nova Scotia), PRACTICAL GROUNDS the Province of Nova Scotia), PRACTICAL GEOLOGIST, MINING AGENT and MINING ENGINEER, HALIFAX, NOVA SCOTIA, PURCHASES and SALES of MINING PROPERTY effected, with careful regard to the interests of clients.

Awarded the ONLY Gold Medal for Stonebreaker at the International Inventions Exhibition, in competition with all other makes.

HE BLAKE-MARSDEN 1884 Patent Lever Hand-Hammer Action Stonebreakers and Ore Crushers,

NEW PATENT FINE CRUSHER OR PULVERIZER.

Fitted with Patent Beversible Cubing and Crushing Jaws in Five Sections, and with Surfaced ooks, requiring no White Metal in fixing. Crucible Cast Steel Levers and Toggle Cushions, rass or Gun Metal Bearings throughout.

OVER 5000 IN USE.

PULVERIZER TESTIMONIAL

"The Fine Crusher we had from you in August last is an excellent pulverizer, and rapidly reduces hard material to a fine powder."

"The Pulverizer has now been working two months, and answers its purpose most satisfactorily."

"It is with the greatest satisfactorily."

"It is with the greatest satisfactorily."

"It is with the greatest satisfactorily. The Pulverizer you provided us with, has quite fully given the results you represented to us, completaly reducing our material to an inpalpable powder at one operation. Blould you refer any one to us we should have much pleasure in recommending the machine."

"I have great pleasure in bearing testimony to the merits and capabilities of your patent combined finerusher and sieving apparatus. I have tried it on a variety of ores and minerals, and it pulverizes them with equal success. You can put in a small paving stone and bring it out like flour."

"In reply to your favour, I have much pleasure in informing you that the 12×3 Pulverizer we had from you is giving usevery satisfaction. The material we are operating on is an exceptionally hard one. I am well astisfied with its working."

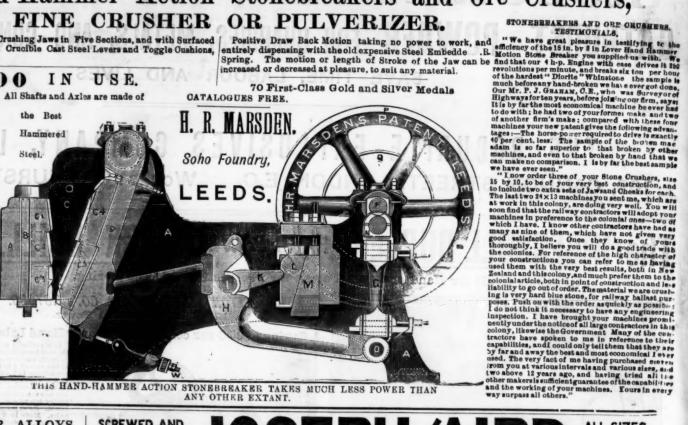
"Our experience is that the motion and mechanical arrangements of your machine are the best for pai verising that we have ever met with."

"Thereports from our minesa regardaths work in of your Fine Crusher (20×5) recently supplied ar very favourable, although we cannot quote you exact a fures. On being got into position it was tried to And, with the result that it made short work of the biggest pleces of ore we put into the hopper. You might s. y how long you would take to deliveranother of the same size."

"A I once before stated, your machine is a perfect piveriser."

"It me sure the machine will be a success, and a great one, and there is any amount of demand for great one, and there is any amount of demand for great one, and there is any amount of demand for great one, and there is any amount of demand for great one, and there is any amount of demand for gr

"I am sure the machine will be a success, and a cat one, and there is any amount of demand for the amachine. We can work it with 20 lbs. of steen do ur engine, which is a 12 h.p., plays with it rk, in fact we run the Stonebreaker and the Pulricerboth together with 35 lbs."



THIS HAND-HAMMER ACTION STONEBREAKER TAKES MUCH LESS POWER THAN ANY OTHER EXTANT.

ONLY GOLD MEDAL FOR ALLOYS INVENTIONS EXHIBITION.

The Best Alloys for all Wearing parts of Machinery, Bearings, &c. BE OF ALL IMITATIONS, & SPECIFY THE COMPANY'S MAKE.

BULL'S METAL, Ingots, Forgings, | Specially adapted Castings, Stampings, Rods and Sheet.

Mining Work.

The Phosphor Bronze Company, Ltd.

87, SUMNER STREET, SOUTHWARK, LONDON, S.E.

SCREWED AND SOCKETED TUBES AND FITTINGS IRD'S PATENT AIRD'S IRON



WHOLE OR HALF FLANGES, IN SLOT(A) IS INSERTED

GUTTA-PERCHA LEAD

ALL SIZES

PLAIN OR'

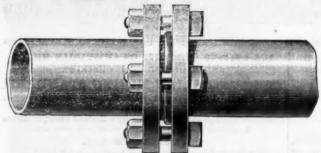
GALVANIZED

STEEL

WELDING.

ANY SHAPE.

WORKS: Albion Tube Works, BIRMINGHAM. Coombs Wood Tube Works, HALESOWEN.



JIGS.

WAREHOUSES: London-90, Cannon Street, E.C., and 167, Upper Thames Street. Birmingham-Nile Street, Sheepcote Street, & 10, Coleshill Street. Liverpool-63, Paradise Street.

Manchester-42, Deansgate.

MUVOTITION.

IRON & STEEL TUBES FOR ALL MINING PURPOSES.

THE "ALBION" LOOSE FLANGED JOINT

OFFICE: Broadway Chambers, WESTMINSTER.

Telegraphic Address: "DONBOWES.

MITITATIO

VANNERS. CRUSHING ROLLS. STAMPS. AMALGAMATING PANS. BALL MILLS. SETTLERS & CLEAN UP PANJ. ROASTING AND WATER JACKET-

SCREENS OF ALL KINDS. FURNACES. AMALGAM RETORTS. &c. engines single & compound, boilers of all kinds, turbines, &c.

> SOLE LICENSEES AND MANUFACTURERS OF "Patent" KROM ROLLS.

FOR FINE CRUSHING.

ASSAYS CONDUCTED WESTERN. LONDON."



SAMPLING WORKS, Phoenix Wharf, Church Road, BATTERSEA.